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# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

### **INTEGRATION OF INFORMATION OPERATIONS IN COMBAT**

by

Christopher Quick

December 2008

Thesis Advisor:  
Second Reader:

John Arquilla  
Erik Jansen

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**INTEGRATION OF INFORMATION OPERATIONS**

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Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF SCIENCE IN INFORMATION OPERATIONS**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 2008**

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## **ABSTRACT**

The purpose of this thesis is to examine whether the U.S. military is fully integrating information operations in combat operations. Using the organizational theories of Henry Mintzberg and the work of Richard Daft as one frame of reference and the information theories of Claude Shannon, John Diebold, and Martin Libicki as the second frame of reference, this thesis produced testable propositions to determine which theory had a greater ability to explain the degree of integration as seen in the four case studies of Operation Joint Guard/Forge (Bosnia), Operation Enduring Freedom-Afghanistan, Operation Enduring Freedom-Philippines, and Operation Iraqi Freedom.

This study concludes that both the organizational and information theories explain how and why military commanders integrate IO successfully into combat operations and contains insights drawn from this study to include: without the proper command atmosphere, the integration of information operations will simply not occur. Commanders who do not believe in the usefulness of IO will focus on kinetic operations instead of a full spectrum view, which uses all the elements of combat power and the increased speed and reliability of information that passes from the human network (physical) to the computer network and from the tactical level to the strategic levels. This full spectrum view allows commanders and staffs alike to understand and integrate IO into combat operations more effectively.



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# **I. INTRODUCTION**

## **A. FOREWORD**

The U.S. Army has been wrestling with *information operations* since the concept formally appeared in August 1995, when the Army's Training and Doctrine Command (TRADOC) released Pamphlet 525-69, "Concept for Information Operations."<sup>1</sup> Since its inception, the concept has evolved in the face of numerous adversaries. Yet information operations (IO) is now nearly on a par tactically, operationally, and strategically with "kinetic" operations. This is evident by General William Wallace's comments in the March-April 2008 Military Review where he stated; "FM 3-0 revises how the Army views information operations and the staff responsibility for the tasks associated with them. The current age of increased information technology, interconnected global commerce, and trade exponentially increases the impact of the information environment on operations."<sup>2</sup>

The operational environment is progressing so quickly that traditional commanders who are trained to conduct kinetic operations often fail to recognize the inseparable connection between kinetic action and the second and third order effects it has on the adversary, the civilian population, and the personnel back home. The lack of understanding of information effects by traditional commanders has led to a greater need to rely on the IO practitioners and their ability to bring the tools of information operations to bear in military operations. This has caused many to believe the role of the IO practitioner is important enough to synchronize effects but not important enough to fully integrate with operations.

Commanders in the field who realized the importance of these powerful tools began trying to use IO in operations as early as Desert Shield in 1990, followed by Desert Storm in 1991,<sup>3</sup> and continuing to the present day and the War on Terror. However,

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<sup>1</sup> Department of the Army, Pamphlet 525-69, Concept for Information Operations, 1995.

<sup>2</sup> William Wallace, General. FM 3-0 Army Operations; The Army's Blueprint, Military Review March-April 2008: 6.

<sup>3</sup> History and Evolution of IO, Prepared by the Joint IO Center, January 2000.



according to many IO professionals, the implementation and integration of information operations has fallen much shorter than anticipated while prosecuting the war on terrorism. This is not from lack of effort to integrate IO; rather it lies in the confusion about this way of fighting. To accomplish the task of integration across the spectrum of warfare, information operations must become organic to full spectrum warfare from the soldiers at the tactical Brigade Combat Team (BCT), to the strategic leaders in the Office of the Secretary of Defense.

## **B. SAMPLES OF SECTIONS**

The purpose of this thesis is to examine whether the U.S. military is fully integrating information operations (IO) from the soldiers at the tactical BCT, to the strategic leaders in the Office of the Secretary of Defense. In an operational environment where technology is drastically improving the ability of adversaries to conduct IO against the U.S., the success of U.S. military IO will depend not only on the higher-echelon commander and his planning staff, but also on the soldiers and junior leaders beneath him who must comprehend and execute it.

This paper provides a historical overview of information operations and its marriage to the military using the work of Henry Mintzberg and Richard Daft as an organizational frame of reference and the theories of Claude Shannon, John Diebold, and Martin Libicki as an informational frame of reference. It then produced testable Propositions that analyze four case studies to determine which frame of reference has a greater impact on the integration of IO into combat operations. The author realizes that a fully integrated information operations strategy requires synchronization, coordination, and or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort.<sup>4</sup> Strategic guidance and desired end states come from the President of the United States and the National Security Council and then passed to combatant commanders, who play a pivotal role in unifying (integrating) actions. However, subordinate commanders also may integrate and synchronize strategic

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<sup>4</sup>U.S. Joint Chiefs of Staff. Personnel Support to Joint Operations, Joint Publication 1-0. Washington D.C. October 16, 2006.

guidance directly with the activities and operations of other military forces and nonmilitary organizations in their area of operations.<sup>5</sup> While a truly integrated strategy involves the application of all instruments of national power, this thesis focuses on information operations within the U.S. military and, more specifically, the information operations structure within the U.S. Army.

## **C. SECTIONS OVERVIEW**

### **Chapter I: Introduction**

This chapter provides the purpose and scope of the thesis (examining whether the U.S. military is fully integrating information operations [IO]); it will then provide a chapter overview highlighting topics covered during the study.

### **Chapter II: Background**

This chapter examines the evolution of information operations from Information Warfare (IW) and Command and Control Warfare (C2W) to information operations, and the recognition of the critical role of information as an element of national power through the full spectrum of peace, conflict, and war. It examines the history of information operations and its connections to influential and successful organizations over the past century. It then shows the impact the IO career field has had on shaping political, economic, military, and cultural forces on a long-term basis while affecting the global behavior of governments, organizations, and societies to support national security objectives.

### **Chapter III: Relevant Theory and IO**

Using various organization and information theories, this chapter identifies an organizational and informational frame of reference to determine which frame of reference has a greater impact on the integration of IO into combat operations. Using the organizational theories of Henry Mintzberg and the work of Richard Daft as the first frame of reference, as well as the information theories of Claude Shannon, John Diebold,

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<sup>5</sup> Department of the Army. Field Manual 3-0, Operations. June 2001. Washington, D.C.: Headquarters, Department of the Army, 2008.

and Martin Libicki as second frame of reference, this chapter produces testable propositions to analyze the four case studies in Chapter IV.

#### **Chapter IV: Integrating IO in Combat**

Using the four cases studies of Operation Joint Guard/Forge (Bosnia), Operation Enduring Freedom (Afghanistan), Operation Enduring Freedom (Philippines), and Operations Iraqi Freedom (Iraq), this chapter uses the frames of reference and propositions developed in the chapter three to explore which frame of reference has a greater impact on the integration of IO into combat operations. Organizational theory proposes that the organizations faced with increasingly complex environments decentralize, to increase the number of information processes, and to rely on support staffs. Information theory further focuses on information as the message and information as the medium, through the physical, information, and cognitive dimensions to address the complex problems faced in today's operational environment.

#### **Chapter V: Findings and Recommendations**

In order for the U.S. to become more proficient at IO, this work suggests that information operations should encompass the vertical and horizontal integration from commanders and soldiers operating within and among the populace to policy makers and the Secretary of Defense. Information operations must seek to link these messages, presenting an integrated approach to inform U.S. forces and friendly audiences while influencing neutral and enemy audiences.

## **II. INFORMATION OPERATIONS BACKGROUND**

### **A. INTRODUCTION**

Due to the increased threat level throughout the world over the past decade, the U.S. Army and the Information Operations Career Field has had to evolve in order to meet the increased challenges posed by a range of adversaries. However, according to many in the IO career field<sup>6</sup> the implementation and integration of information operations have fallen much shorter than anticipated when prosecuting these conflicts. This is not from lack of effort to utilize the elements of IO; rather, it lies in the confusion of how to integrate these elements from the onset to the completion of hostilities.

The use of information operations or, at least elements of IO,<sup>7</sup> are not new to warfare. The Bible provides some of the earliest known uses of IO, when in 1300 B.C. Gideon utilized military deception to outwit and defeat Israel's ancient foe, the Midianites. This chapter examines the historic roots of information operations broken down into three segments.

The first segment highlights uses of IO at the tactical level from Gideon in 1300 B.C. to the end of the 19th century and the Spanish American War. The author realizes that this is an expansive timeframe and only highlights certain events during this period to illustrate the consistency of elements of IO throughout history.

The second segment covers the early twentieth century and the strategic level of IO, starting with the Philippine-American war (1899-1902) until the Operation Just Cause in 1989, when PYSOP teams used loudspeakers to blast loud rock music and messages

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<sup>6</sup> Center for Army Lessons Learned, Operation Iraqi Freedom (OIF) CAAT II Initial Impressions Report 04-13 (Fort Leavenworth: May 2004), 1–27; Center for Army Lessons Learned, Information Operations CAAT Initial Impressions Report 05-03 (Fort Leavenworth: May 2005), iv, 1 2, 49–52; Center for Army Lessons Learned, Initial Impressions Report: Stability Operations–Support Operations Operation Iraqi Freedom (Fort Leavenworth: December 2003), 22; OEF/OIF CAAT Initial Impressions Report: Stability Operations – Support Operations (Fort Leavenworth: December 2003), 61.

<sup>7</sup> For the purpose of this thesis IO the elements of IO are considered, Electronic Attack, Computer Network Operations, Psychological Operations (PSYOP), Operational Security (OPSEC), Military Deception, Physical Destruction, Information Assurance (IA), Physical Security, Counter Intelligence, Counter Deception, Counter Propaganda, Civil Affairs (CA), and Public Affairs.

into the Vatican Embassy compound, where Noriega sought refuge, in an effort to demoralize Noriega and influence him to surrender.

The third segment covers the Persian Gulf War in 1990 and progresses through the formal birth of IO in 1995 when the Army's Training and Doctrine Command (TRADOC) released Pamphlet 525-69, "Concept for Information Operations,"<sup>8</sup> and ends with present day operations and the execution of information operations in the Global War on Terror. This segment highlights the U.S. military's attempt to integrate IO at the various levels of warfare.

## **B. SEGMENT ONE –TACTICAL IO**

The concept of information operations formally dates from 1995<sup>9</sup> with the release of the Pamphlet 520-65. However, concepts now considered essential elements of IO are evident throughout the history of warfare, from Gideon's use of deception in 1300 B.C. to Alexander and his use of PYSOP during conquest in 356 B.C., to the current evolution of IO that includes a movement to five Army information tasks.<sup>10</sup> Histories' state leaders and military commanders have consistently sought to gain an advantage over their foe using means other than direct force of arms. These leaders, while seeking other means, have always integrated their schemes into a greater overall plan of victory.

### **1. Gideon and the Midianites**

One of the earliest examples of the integration of IO is Gideon's use military deception in 1300 B.C.<sup>11</sup> According to the book of Judges in the Holy Bible, Gideon, the leader of the Israelites, led an Army of Israelites against Israel's ancient foe, the Midianites. Facing a much larger force, Gideon utilized tactical deception to create the illusion of a larger military force attack at night. Utilizing a small band of 300 soldiers, he divided his men into three companies, surrounded the encampment, and waited until

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<sup>8</sup> Department of the Army, Pamphlet 525-69, Concept for Information Operations, 1995.

<sup>9</sup> Ibid.

<sup>10</sup> FM 3-0, released in 2008, updates information operations from the core supporting and related tasks to the five "information" tasks.

<sup>11</sup> Judges (chapters 6-8).

nightfall. Just after midnight, his men blew rams' horns, broke their clay jars, and held blazing torches in their left hands while they shouted.<sup>12</sup> The result was confusion among the army of the Midianites who fled and were ultimately defeated by a larger pursuing Israelite army.

## **2. The Trojan War**

The next great historical example is the Greek's use of military deception during the siege of Troy.<sup>13</sup> After ten years of failed attempts to defeat the Trojans, a Greek warrior devised a scheme to erect a large wooden horse as an offering to the goddess Athena and place it outside the gate of Troy before departing by sea. Before departing, the Greek coalition warned the Trojans not to take the monument to Athena into their city, lest disaster would come to the city. When the Trojans came to marvel at the Greek monument they found one man, Sinon, left behind to ensure the Trojans took the horse into Troy. Sinon pretended to be angry with the Greeks, stating that they had deserted him and assured the Trojans that the wooden horse was safe and would bring luck to the Trojans. That evening, when Troy was asleep or in a drunken stupor, the Greek warriors emerged from the horse and opened the city gate, which allowed the Greeks to slaughter the Trojans.

## **3. Genghis Khan and the Mongol Horde**

Perhaps one of the earliest leaders to understand the elements of IO was the Mongol leader Genghis Khan as he led his horsemen across Russia and Europe. Targeting his adversaries' decision cycle, Khan would incorporate the use of PSYOP, deception, and operational security to defeat any foe he faced. Genghis Khan's use of IO before, during, and after the battle allowed his mobile army to expand their empire often without hostile action. Before any attack occurred, the Khan would send scouts to ride ahead of his army in a two-fold mission. The first mission was to gather intelligence on

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<sup>12</sup> George Konig, "Gideon — Biblical People." AboutBibleProphecy.com. <http://www.aboutbibleprophecy.com/p16.htm> (accessed November 2008).

<sup>13</sup> "History of the Trojan War." Stanford University. <http://www.stanford.edu/~plomio/history.html> (accessed November 13, 2008).

the area and its defenses, the second was to act as “agents of influence” by conducting face-to-face PSYOP with the population, telling of the brutality and large numbers in the Mongol army. The agents of influence were then reinforced by the Khan’s use of deception to create the illusion of invincible numbers by using rapid troop maneuvers, making his army look larger than it really was.

During the battle, networks of horsemen called “arrow riders” were utilized to expedite battlefield communications with subordinate commanders, allowing precision movements and enabled the forces to mass at the decisive point.<sup>14</sup> This enhanced communication coupled with the strict secrecy (OPSEC) of movements and battle plans along with the targeting of enemy messengers, prevented enemy commanders from communicating with each other, thus allowing the Mongols to achieve information dominance while disrupting the enemies decision cycle.

#### **4. Revolutionary War**

Early examples of the use and integration of IO elements are not only evident in Europe but in America as well. During the Revolutionary War, the founding fathers utilized military deception, PYSOP, OPSEC, and public affairs as part of the overall campaign to win the Revolutionary War. Often facing superior numbers, General Washington used nonlethal means to his advantage, forcing the British to make wrong decisions tactically, operationally, and strategically.

The first example of the use of IO elements in America is the use of deception by General Washington to prevent an attack on the newly arrived French troops near Newport, Rhode Island.<sup>15</sup> George Washington having received this intelligence, immediately drew up plans for a feinted attack on New York City. He then had the “plans” delivered to a British outpost by a local farmer, who claimed to have found them on a nearby road.

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<sup>14</sup> David L Grange, James A Kelley, “Victory Through Information Dominance.” Army, March 1997, [http://findarticles.com/p/articles/mi\\_qa3723/is\\_199703/ai\\_n8742077](http://findarticles.com/p/articles/mi_qa3723/is_199703/ai_n8742077) (accessed May 2008).

<sup>15</sup> P. K Rose, *The Founding Fathers of American Intelligence*, 2008, <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/the-founding-fathers-of-american-intelligence/art-1.html> (accessed May 2008)

To convince the British of the impending attack, Washington marched his army toward New York City to provide further “evidence” that the Americans were preparing for an attack.<sup>16</sup> The British general faced with an imminent attack and having the American’s attack plans, which had been signed by the American leader, recalled his troops that had been dispatched to attack the French to strengthen the city’s defenses. The timely intelligence and Washington's ruse prevented the attack on the French troops from apparent defeat, which in turn enabled them to reinforce the beleaguered American Army.

## **5. American Civil War**

During the American Civil War, each side of the conflict integrated elements of information operations to achieve varying levels of success in their overall strategies. Two primary examples are first the use of deception and electronic attack/physical destruction on the newly constructed telegraph system and second, the use of PSYOP and Public Information (later to be referred as Public Affairs).

With the successful deployment of the telegraph system and the demand for increased timely information, both Union and Confederate commanders, seeing the value in the telegraph system, regularly targeted the telegraph lines and its operators. Cavalry units from each side would switch military telegraph traffic to the wrong destinations, transmit false orders, and cut the wires to deny information to the forces prior to attacks.

One example of this integration was the battle of Brentwood, Tennessee, when Confederate Brigadier General Nathan B. Forrest approached the town of Brentwood held by Union LTC Edward Bloodgood. Unknown to the Union commander, the day prior to the attack, General Forrest had ordered his soldiers to cut the telegraph, tear up railroad tracks, attack the stockade, and cut off any retreat.<sup>17</sup> The next morning a Union messenger from the stockade, informed the union commander that Forrest's men were about to attack and had destroyed railroad track. Receiving this information, Bloodgood

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<sup>16</sup> Rose. *The Founding Fathers of American Intelligence*, 2008.

<sup>17</sup> “Tennessee Civil War Battle Brentwood American Civil War.” *Americancivilwar.com*. <http://americancivilwar.com/statepic/tn/tn015.html> (accessed November 13, 2008).



sought to notify his superiors and discovered that the telegraph lines were cut. General Forrest sent in a demand for surrender under a flag of truce but Bloodgood refused. Within a half hour, the Confederate artillery began to shell Bloodgood's position as well as surrounded the Federals with a large force. The union commander relented and decided to surrender.<sup>18</sup>

The second example comes from the Union side and President Lincoln's use of Public Information and PSYOP while releasing the Emancipation Proclamation. Lincoln used the public release of the proclamation as a strategic military measure designed to both deprive the Confederacy of slave labor and bring additional men into the Union Army. The public release also provided tremendous inspirational and slogan value while declaring the Union cause as a principle based on universal justice and natural law.<sup>19</sup>

Lincoln delivered the proclamation, which had been previously drafted, only after a tactical victory by the Union. He felt it would be inappropriate and seen as a desperate act versus a just and moral declaration if not released in conjunction with a Union victory. His target audience was both foreign and domestic with the primary groups being first, the British and their support for the Union cause as they were morally opposed to slavery. Second, the slaves themselves, as this provided another pool of recruits to fight the confederacy and reduced the labor force of the southern industry. Last, the proclamation targeted the white populations (both in the North and in the South) for their support and or opposition to slavery. Ultimately, the timing and the content within the proclamation worked as it turned British support towards the Union cause, increased the number of black soldiers, and gave moral and inspirational encouragement to the slaves and white supporters alike.

## **6. The Philippine Insurgency**

The last example in this general period of history occurred in the wake of the Spanish-American War, where the U.S. forces found themselves in a bitter guerrilla war facing insurgents in the former Spanish colony of the Philippines. The guerillas fought

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<sup>18</sup> "Tennessee Civil War Battle Brentwood American Civil War."

<sup>19</sup> "Emancipation Proclamation—Abraham Lincoln and Freedom."  
<http://www.mrlincolnanfreedom.org/inside.asp?ID=39&subjectID=3> (accessed August 1, 2008).

with the aim of independence and improving the daily lives of Filipinos, while ensuring the steady stream of American casualties to weaken U.S. domestic support for the war.<sup>20</sup>

Faced with a growing counter insurgency, U.S. forces integrated Civil Military Operations and PSYOP to help defeat the Philippine rebels. Although no leaflets of the time seem to have survived, evidence indicates that the Army emphasized its work in bringing a better life to the Filipinos.<sup>21</sup> The Army's use of civil military projects constructed and publicized farm-to-market roads, clinics, wells, and schools for the education-hungry people. Using this approach, the promise of self-government and eventual independence, along with an effective counter insurgency campaign, ended the Philippine Insurrection by 1902.

## **C. SEGMENT TWO – STRATEGIC IO**

### **1. World War I**

The first IO related organization came to existence during the “War to End all Wars” (WWI) in 1917. The Committee on Public Information (CPI), also known as the Creel Committee after its chief newspaperman George Creel, sought to rally U.S. public opinion behind WW I on behalf of the Wilson administration.<sup>22</sup> This organization utilized Public Affairs, PSYOP, and OPSEC to spread its message. Utilizing the expanding motion picture industry along with newspaper articles, pamphlets, and public speakers known as the four-minute men, the organization primarily focused on the American public.<sup>23</sup>

The success of the CPI domestically led to the later expansion of its role to include people and nations outside the United States. Creel stated, “A triple task

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<sup>20</sup> “Psychological Operations—History of US PSYOP - Part 1,” <http://www.psyop.com/history1.htm> (accessed August 1, 2008).

<sup>21</sup> David S. Maxwell, “Operation Enduring Freedom-Philippines: What Would Sun Tzu Say?” *Military Review*. FindArticles.com. November 6, 2008. [http://findarticles.com/p/articles/mi\\_m0PBZ/is\\_2004\\_May-June/ai\\_n6123958](http://findarticles.com/p/articles/mi_m0PBZ/is_2004_May-June/ai_n6123958) (accessed November 10, 2008)

<sup>22</sup> US Army IO Primer, U.S. Army War College, Dept. of Military Strategy, Planning, and Operations, November 2006.

<sup>23</sup> George Creel, “How We Advertised America, 1920,” [www.Historytools.org](http://www.historytools.org/sources/creel.html), <http://www.historytools.org/sources/creel.html> (accessed August 8, 2008).

confronted us. First, were the people of the Allied nations that required reassurance of the magnitude of the American effort? This included the certainty of speedy and effective aid in order to relieve the war-weariness of the civilian population. Second, we had to carry the truth to the neutral nations, poisoned by German lies; and third, we had to get the ideals of America, the determination of America, and the invincibility of America into the Central Powers.”<sup>24</sup>

To accomplish the task of disseminating information, special mail and photograph services were built for the foreign press, reading-rooms opened abroad, schools and photographs were displayed prominently.<sup>25</sup> The results of the CPI’s foreign and domestic work were evident at home, as the American population showed few signs of disloyalty or disaffection. Liberty Loan drives were all oversubscribed and Red Cross contributions as well as a dozen other war-support causes were successful. Overseas both of President Wilson’s trips to the war weary nations of Europe were successful. The President received open adoration and praise wherever he traveled, while his Fourteen Points enjoyed a high-level of popularity among Europeans.<sup>26</sup> While the CPI and its efforts were seen as a resounding success, many of the slogans used “the war to end war” and “making the world safe for democracy” were misleading catch phrases. In reality, the end of the “Great War” only laid the foundation for the rise of Nazi Germany and fascism, followed by the Second World War<sup>27</sup> and the creation of another IO forefather.

## **2. World War II**

When the United States entered World War II, President Franklin D. Roosevelt realized that public information and its policies must have the success of the defunct CPI

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<sup>24</sup> George Creel, “How We Advertised America, 1920.”

<sup>25</sup> George Creel, “Creel Committee, WWI.” <http://web.utk.edu/~glenn/CreelCommittee.html> (accessed November 13, 2008).

<sup>26</sup> Refers to Wilson’s 14-point plan after the war.

<sup>27</sup> “What Role Did George Creel and the Committee on Public Information Play in the World War I? - Yahoo! Answers.” Yahoo, Inc. <http://answers.yahoo.com/question/index?qid=20080413142143AAFx2PY> (accessed November 13, 2008).

without the directed mission and the spirit of the CPI.<sup>28</sup> Facing multiple audiences across the globe, the President created the Office of War Information (OWI) in 1942, focusing both domestically and overseas as the CPI had done. The OWI like its predecessor, synchronized many of the elements of IO during the prosecution of its IO propaganda mission.

The OWI, in its establishment, consolidated several government bureaus like the Office of the Coordinator of Information and Foreign Intelligence Service to synchronize and coordinate the release of war news for domestic use. This news was released via newspaper, newsreels, posters, and radio broadcast, and delivered themes that included the promotion of patriotism, warn about foreign spies, promote OPSEC, and attempt to recruit women into the wartime workforce. The overseas branches launched large-scale information and propaganda campaigns against the neutral and axis populations to garner support for the allied cause using many of the same tactics and techniques as its domestic arm.

One of the primary means of propaganda was the Voice of America (VOA), which began its first broadcast with the statement, “Here speaks a voice from America, everyday at this time we will bring you the news of the war, the news may be good, the news may be bad, we shall tell you the truth.”<sup>29</sup> The radio service became so useful that, by the end of the war, VOA had 39 transmitters providing service in 40 languages with programming broadcast from production centers in New York and San Francisco and is still in service to this day.<sup>30</sup>

### **3. Cold War**

After the defeat of the Germans and Japanese, the spread of communism across the globe became the new threat to the United States. To combat this new threat, the President established an organization to conduct IO at the strategic level. The United

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<sup>28</sup> “The Creel Committee – FREE the Creel Committee Information | Encyclopedia.Com: Find the Creel Committee Research.” <http://www.encyclopedia.com/doc/1G2-3468300537.html> (accessed November 13, 2008).

<sup>29</sup> “VOA News–Voice of America Homepage - News in 45 Languages.” Broadcasting Board of Governors. <http://www.voanews.com/english/portal.cfm> (accessed November 13, 2008).

<sup>30</sup> Ibid.

States Information Agency (USIA) was established by President Eisenhower, as authorized by the Smith-Mundt Act in 1953.<sup>31</sup> The new agency included all information programs, to include the Voice of America (the largest constituent), which had previously been under the direction of the State Department.

While no direct “large-scale” fighting took place between the United States and the Soviet Union, proxy wars were fought (Korea and Vietnam) along with the battle for public and world opinion. The importance the USIA was evident by its director who reported to the President through the National Security Council. In addition, the day-to-day guidance on U.S. foreign policy from the Secretary of State allowed the agency to have up to date policy information.

The purpose of the USIA was to utilize PSYOP and PAO in order to understand, inform, and influence foreign publics in the promotion of U.S. national interests. The USIA accomplished this task through dialogue between Americans, U.S. institutions, and their counterparts abroad, as well as foster exchanges of students, professors, and diverse categories of citizens between the U.S. and foreign societies.<sup>32</sup> This mission allowed the United States to promote America and its policies by having the populations of the world experience the United States firsthand, as U.S. citizens went abroad on cultural and educational exchanges with their American spirit. This surviving program of cultural exchange was and still is very effective, as many of the today’s world leaders have taken part in these exchanges.

#### **4. Operation Just Cause**

The last example during this segment is Operation Just Cause in 1989, when the United States integrated the use of PYSOP, civil affairs, and public affairs teams throughout the entire process of the operation. PSYOP teams prepared the population

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<sup>31</sup> Bryan Hill, “The Smith–Mundt Act of 1948: Comments, Critiques, and the Way Forward.” The Center for Security Policy. <http://www.centerforsecuritypolicy.org/Modules/NewsManager/Center%20publication%20PDFs/OCC%20Smith%20Mundt.pdf> (accessed November 13, 2008).

<sup>32</sup> “USIA, the United States Information Agency Homepage.” Federal Depository Library at the University of Illinois at Chicago. <http://dosfan.lib.uic.edu/usia/> (accessed October 13, 2008).

months in advance by using pre-recorded messages and scripts on the radio and television<sup>33</sup> as political tension increased between the two nations.

Public affairs and PYSOP teams collaborated to explain the current American actions in Panama to two different audiences. The first audience, the American people, received an explanation for the U.S. intervention from President Bush. The second audience, the local Panamanian population, received information on the intent of U.S. forces in Panama with the purpose gaining their support. The U.S. accomplished this through the production and dissemination of one million leaflets and handbills, 50,000 posters, 550,000 newspapers, and 125,000 units of other miscellaneous printed materials coupled with television broadcasts and radio stations operating 24 hours a day to inform the local populace.<sup>34</sup>

On the day of the invasion, PSYOP teams landed with the assault force to conduct tactical PSYOP operations during the initial phase of the invasion. These initial teams were later relieved by various civil affairs and psychological elements that arrived to relieve the assault forces, engage in stability operations, and help establish a new government.<sup>35</sup> While many different techniques were used during the operations, tactical PSYOP teams are ultimately remembered for the use of tactical loudspeakers to blast rock music and messages into the Vatican Embassy compound in an effort to demoralize Noriega and influence him to surrender. The important point from this operation is the fact that commanders integrated the elements of IO into the planning process from the beginning to end. This foresight by commanders set the stage for future conflicts and the important role of the future IO career field.

#### **D. SEGMENT THREE – ATTEMPTS AT INTEGRATING IO**

The dawning of the information age brought with it a shift from the traditional command and control warfare to a new concept called information operations. While the

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<sup>33</sup> Ed Rouse, "Panama - Operation just Cause." <http://www.psywarrior.com/panama.html> (accessed October 13, 2008).

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

creation of the information operations theory would not officially arrive until 1995, many of the elements of IO were evident during the first Gulf War (1990), when the U.S. military acknowledged the importance and relevance of information during combat operations by integrating command and control warfare (C2W). While the new C2W (IO) warriors were few in number, the importance of the field along with the development and progression of new information theories began to evolve.

## **1. Operation Desert Shield/ Storm**

In Operation Desert Shield and subsequent Desert Storm, commanders prosecuted Command and Control warfare almost perfectly with at least, five elements of IO (Deception, PSYOP, OPSEC, EW, and Physical Destruction) which integrated into the overall campaign plan. The plan integrated the aforementioned five elements of IO into plans at both the strategic and operational levels. Coalition forces systematically inundated Iraqi troops with psychological operations (PSYOP) products; decimated Iraq's air defense system; disrupted its ability to acquire targets; reduced its ability to conduct propaganda operations; and interrupted communications between military commanders from the strategic to the tactical level. Further supported by a robust military deception (largest since World War II), these actions rendered Iraq's military forces ineffective, mentally defeated, and subsequently defeated by persistent bombing runs coupled with a blitzkrieg ground campaign of the coalition forces. The full spectrum integration of command and control warfare was impressive and laid the groundwork for future battlefield successes.

The resounding images of the Iraqi military surrendering en masse remains as clear today as they did in 1990, and serves as a testament to the power of information when coupled with military action. However, as powerful as the images are, the integration of IO remained at the strategic level and to some degree at the operational level. The deliberate use of many of the elements of IO were used with great success but ultimately few commanders at the operational level and below fully appreciated and utilized command and control warfare.

## **2. Somalia – Operation Restore Hope**

With a resounding success using C2W (IO) in Desert Storm, the next test came during the U.S. operations in the country of Somalia in 1992. Although the military had not produced a doctrine to guide the organization, U.S. commanders used many of the now stated IO capabilities during the humanitarian mission. Commanders began using “soft power” by utilizing a combination of PSYOP and public affairs along with CA teams to pass selected themes and messages to the Somali people and leaders. The CA and PSYOP teams’ management of relief projects eased the immense Somali human suffering and reinforced the U.S. military themes and messages.<sup>36</sup> Essentially, the humanitarian crisis was relieved during the initial days of the mission. This use of tactical level IO coupled with the strategic level showed another attempt by commanders to utilize the power of information during an operation. Tactical PSYOP and CA teams conducted face-to-face engagements at the tactical level while public affairs officers and media beamed images of U.S. humanitarian relief across the world.

In March 1993, the UN and subsequently the Clinton administration prompted the U.S. military to change its humanitarian mission to a peace enforcement/nation building mission, which resulted in the turning point for military forces in the area. This change of mission involved attempts to implement disarmament of the fifteen Somali parties (specifically General Mohammed Farrah Aidid’s) who had signed a reconciliation plan in March of 1993. These attempts resulted in hostile engagements between UN/U.S. and the Somali forces. The increase in hostilities between the U.S. and Somalis militias destroyed the credibility and neutrality of the U.S. among the suffering Somali people. It is important to note that during this period, an important lesson was learned by the evolving IO field. This lesson came from our adversary (Mohammed Farah Aidid) rather than the U.S. itself. Aidid, who considered himself a master of perception management, had his forces film themselves dragging the dead body of a U.S. pilot through the streets of Mogadishu and then passed the video to the international news media.<sup>37</sup> The footage

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<sup>36</sup> Zachary P. Hubbard, “Operations in the Information Age: A USAF Perspective,” Abstract.

<sup>37</sup> During operations to capture tier-one personalities of the Habr Gidr clan, headed by Aidid, two U.S. MH-60 Black Hawk helicopters were shot down by rocket-propelled grenades, and three others damaged.



ran across the globe and resulted in the withdrawal of U.S. forces from Somalia as well as a reversal of U.S. national policy in the Horn of Africa.

The lessons learned from operations in Somalia were first, that when information is properly applied it could be just as powerful as military, economic, and diplomatic power. The second lesson was the power of the “CNN factor” and how it can be used to impact combat operations with second and third order effects.<sup>38</sup> The last lesson was how tactical level events can have operational and strategic impact.

### **3. Haiti – Uphold Democracy**

In 1994, U.S. commanders extensively used command and control warfare (IO) elements prior to U.S. forces entering Haiti for Operation Uphold Democracy. Although contingency plans for both permissive and forcible entry plans were in place, IO components were in full swing with PSYOP, Civil Affairs, and Public Affairs used heavily to get a permissible entry. Senior military and government leaders showed their new understanding of information by the integrated use of the elements of IO before, during, and after the operations. While the primary effort was at the strategic level, glimpses of IO at the operational and tactical level are evident as well.

At the strategic level, military commanders used elements of IO prior to the introduction of forces by having military aircraft broadcast PSYOP messages directly to the Haitian people through radio and TV. The messages ranged from discouraging the Haitians from attempting to flee to the United States, to messages from deposed President Aristide explaining the situation and the mission of U.S. soldiers. To encourage Haitians to listen to broadcasts, the U.S. military dropped 10,000 portable radios which allowed citizens to monitor the Commando Solo broadcasts by the 193 Special Operations Group, Pennsylvania Air National Guard.<sup>39</sup>

At the operational level, influence operations targeted Haitian military leaders and top civilian leaders. U.S. messages urged the Haitian civilian and military leadership to

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<sup>38</sup> The CNN Factor is considered the power of the press to have direct impact on a government's foreign policy. Its effects are hotly debated.

<sup>39</sup> “PSYOP in Haiti,” <http://www.psywarrior.com/haiti2.html> (accessed May 28, 2008).

relinquish power, to capitulate to American troops, and to turn in their weapons. This countrywide campaign aided by the U.S. helped transition back to the democratically elected Haitian government.

At the tactical level, commanders integrated C2W by utilized their Tactical PSYOP Teams (TPT) with outstanding success. One such integration was when a “tactical commander decided to use a graduated response tactic that began with TPTs broadcasting surrender messages, followed by a countdown sequence. Approximately 80% of the individuals at each objective surrendered and the rest offered no resistance when the assault team entered the building. Not a shot was fired during the entire operation. Again, a well planned and well executed IO at the tactical level, in direct support of the commander’s mission and intent, was invaluable to the successful and safe accomplishment of the mission.”<sup>40</sup>

#### **4. Bosnia – Operation Provide Promise**

Over the next six years (1994-2000), several significant events occurred to the information operation field. The first was the creation of the Army’s first and only IO unit, 1st Information Operations Command (Land), formerly the Land Information Warfare Activity was activated in 1995.<sup>41</sup> Additionally, the first Army IO doctrine (FM 100-6) was published in 1996, with the first Joint IO doctrine followed in 1998, and most importantly in 1997, when the Army created a functional area for IO officers under the Officer Personnel Management System XXI (OPMS XXI) in 1997.<sup>42</sup> The first large-scale application and integration of IO (as a U.S. military doctrine) was in Bosnia-Herzegovina. Operations in Bosnia revealed the value of integrating and coordinating the newly minted concept of IO with combat operations. IO professionals began working from the tactical to the strategic levels with the MND (N) IO cell being the staff agency responsible for planning, coordinating, and synchronizing IO at the division level (operational/tactical). The IO cell was structured around the 3rd Infantry Division

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<sup>40</sup> “U.S. PSYOP in Haiti - Operation Uphold Democracy,” <http://www.psywarrior.com/HerbHaiti.html> (accessed May 18, 2008).

<sup>41</sup> Land Information Warfare Activity (Fort Belvoir, VA: Land Information Warfare Activity, 1998), 1.

<sup>42</sup> OPMS XXI Study Final Report, July 9, 1997.

(Mechanized) fire support element<sup>43</sup> (FSE) (-) where a lieutenant colonel served as the chief of IO. This cell included current operations, plans, special projects/targeting, and intelligence sections.<sup>44</sup>

To augment the emerging importance of information operations planning, a Field Support Team (FST) from the Army's then new IO center of excellence, the Land Information Warfare Activity (LIWA), based in Fort Belvoir, Virginia, arrived to help commanders plan and integrate IO.<sup>45</sup> It is important to note that this is first instance of the military establishment specifically structuring to support the application of IO in operations. IO professionals were found at the division and higher levels with a varied histories and background.

Perhaps the most important lesson learned was the integrated utility of PA, CA, and PSYOP as non-lethal weapons across the multiple levels of warfare. Civil affairs, like previous conflicts, played a tremendous role in Bosnia at the tactical and operational levels. CA soldiers coordinated humanitarian relief efforts and assisted in the establishment of government functions and services in the newly formed Bosnian government. PSYOP and PAO troops conducted a massive public information campaign at the operational level in an effort to prevent former warring factions from returning to hostilities, while key leaders utilized face-to-face engagements with the former warring factions' leaders in order to gauge levels of commitment and influence. This multifaceted use of the channels of information to reach to different target audiences had a profound impact on the abilities of the Serbs, Bosnians, and the Croats and can be attributed to the success enjoyed by coalition forces in Bosnia.

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<sup>43</sup>Captain Timothy D. LaBahn, "Information Operations in Bosnia." FA Journal. FindArticles.com. November 13, 2008. [http://findarticles.com/p/articles/mi\\_m0IAU/is\\_6\\_6/ai\\_81626115](http://findarticles.com/p/articles/mi_m0IAU/is_6_6/ai_81626115)

<sup>44</sup>Ibid.

<sup>45</sup> Lieutenant Colonel Stephen W. Shanahan, US Army, Retired, and Lieutenant Colonel Garry J. Beavers, U.S. Army, "Information Operations in Bosnia," Military Review, Vol. LXXVII, No. 6, 56; U.S. Army Command and General Staff College, Ft. Leavenworth, KS.

## 5. Kosovo – Operation Allied Force

In the Kosovo campaign, information operations engaged in one of the first known network wars, along with an active information war. The Serbs conducted network attacks on NATO computer systems, attacked web pages, and sent over 2000 emails containing viruses. The Serbs also employed the old Soviet art of “maskirova,” or tactical deception with great success in Kosovo. *Aviation Week and Space Technology* in July 1999 reported that NATO had dropped 3,000 precision-guided munitions, had hit 500 decoys, but had only destroyed 50 tanks.<sup>46</sup>

On the NATO/U.S. side Admiral James Ellis, the Commander of Allied Force and JTF Noble Anvil describes IO as, “at once a great success...and perhaps the greatest failure of the war.”<sup>47</sup> The Kosovo campaign cites many IO successes, including the development of the first IO cell at the Joint Task force level, the successful use of PSYOP, and the creation of the *Balkan Information Exchange*, a EUCOM sponsored website established to provide unbiased news reporting on the Balkans region. The website offered Balkan news in nine regional languages and still exists under EUCOM sponsorship as the *Southeast European Times*. The downside of the IO campaign was exemplified when Admiral Ellis warned of the perils of information saturation and staffs being controlled by information rather than vice versa. He stated that there were numerous missed IO opportunities, an overall lack of IO understanding by warfighters, and a resounding defeat in the public affairs “battle.” It is clear that today’s threat (Bin Laden and the Al Qaeda network) learned from these shortfalls of the Information War in Kosovo, when Bin Laden and the newly formed “World Islamic Front” declared jihad against Jews & Crusaders in February 1998 trying to capitalize on the “media effect” it had observed.<sup>48</sup>

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<sup>46</sup> David A. Fulghum, “Pentagon Dissecting Kosovo Combat Data,” *Aviation Week and Space Technology*, July 26, 1999, 68.

<sup>47</sup> Admiral James K. Ellis, “A View from the Top,” [http://www.d-n-i.net/fcs/ppt/ellis\\_kosovo\\_aar.ppt](http://www.d-n-i.net/fcs/ppt/ellis_kosovo_aar.ppt), (accessed May 24, 2008).

<sup>48</sup> Lawrence, Messages to the World: The Statements of Osama Bin Laden.

More importantly, the problems identified in Kosovo showed the beginnings of problems that would be exacerbated in the Global War on Terrorism and by the Al Qaeda terrorist network. Although there is no direct evidence to support this claim, the AQ network learned from these shortfalls and was even emboldened by the responses of the United States in Somalia, Bosnia, and Kosovo. This is further evident when Al Qaeda planned and conducted a series of attacks leading up to September 11, 2001.

## **6. Global War on Terror (Al Qaeda and OEF)**

In 1998, AQ conducted attacks on the U.S. embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, resulting in the death of 200 people with more than 5,000 injured, however, the U.S. response was minimal. In December 1999 and into 2000, Al Qaeda planned attacks against U.S. and Israeli tourists during millennial celebrations; however, Jordanian authorities thwarted the planned attacks and put 28 suspects on trial.<sup>49</sup> The plot included bombing LAX but was thwarted when AQ member, Ahmed Ressam was caught at the U.S./Canadian border with explosives in the trunk of his car. Al Qaeda also planned to attack the USS *The Sullivans* on January 3, 2000, but the effort failed due to too much weight from the explosives, which sank the attacking boat. An additional attack was the successful bombing of the USS Cole in October 2000.<sup>50</sup> Although the attack received tremendous media attention, the U.S. response was minimal. While many of the attacks were foiled, the media attention of the planned attacks expanded the ever-growing confidence of Al Qaeda and Osama Bin Laden. The impact of the terrorist organization on the information operations field to this point had been relatively small, however, information operation evolved more from the changing dynamics of warfare rather than from the effects of the terrorists. This was about to change with the Global War on Terrorism.

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<sup>49</sup> Howard Schneider, "Jordan Condemns 6 to Death for Plot; Terror Plan Targeted Millennium Tourists." The Washington Post, 2000.

<sup>50</sup> Chris Plante, Terry Fieden and Nancy Peckenham, "Yemeni President Calls USS Cole Attack 'Very Well-Planned,'" [www.cnn.com](http://edition.cnn.com/2000/US/10/18/cole.investigation/index.html), <http://edition.cnn.com/2000/US/10/18/cole.investigation/index.html> (accessed June 4, 2008).

After the shock of the September 11 attacks, the government and the military sought to bring to bear the full power of the U.S. against the Al Qaeda network, who to this point, had been considered a nominal threat. Information operations elements incorporated directly into the plan, assisted with the seizure of Al Qaeda assets and electronically tracked the flow of money to interrupt their supply network. As CNO assets worked to disrupt the flow of money, a synchronized media barrage, which promised U.S. retribution, stated, “The United States of America will use all our resources to conquer this enemy. We will rally the world. We will be patient. We will be focused, and we will be steadfast in our determination. This battle will take time and resolve, but make no mistake about it, we will win.”<sup>51</sup> Although “soft power” was used in the early stages of the War on Terrorism, direct hostile engagement would soon follow along with numerous other supporting elements of information operations. It was during this hostile engagement in Afghanistan that military officials realized that the Al Qaeda network was more sophisticated than originally thought. A sophisticated enemy that uses the Internet, encrypts communications to plan, command and controls its operations, and has a sophisticated financial network backing it.<sup>52</sup>

Al Qaeda’s media machine had yet to go into full production, yet it began using statements like Bin Laden’s response to the September 11th attacks, when he stated, “On the blessed Tuesday 11 September, 2001 ... they launched their attacks with their planes in an unparalleled and magnificent feat of valor, unmatched by any in humankind before them. ... Yet with the destruction of the Twin Towers in New York, there occurred an even bigger destruction: that of the great American Dream and legend of Democracy.” (Translation of Purported Bin Laden Audio Message, Posted on Islamist Site, 2/14/03)<sup>53</sup> and “It Is Very Easy to Target [America's] Flimsy Base And ... We Will Be Able Crush

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<sup>51</sup> “Online News Hour: Bush Speech–September 12, 2001,” [http://www.pbs.org/newshour/bb/military/terroristattack/bush\\_speech\\_9-12.html](http://www.pbs.org/newshour/bb/military/terroristattack/bush_speech_9-12.html) (accessed June 5, 2008).

<sup>52</sup> Timothy L. Thomas, “Al Qaeda and the Internet: The Danger of ‘Cyberplanning’,” Parameters, Spring 2003, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, <http://call.army.mil/fmso/fmsopubs/ISSUES/alqaedainternet.HTM> (accessed March 19, 2003).

<sup>53</sup> White House Press Secretary, “In their Own Words: What the Terrorists Believe, what they Hope to Accomplish, and how they Intend to Accomplish it,” White House, <http://www.whitehouse.gov/news/releases/2006/09/20060905-7.html> (accessed June 5, 2008).

And Destroy Them.”<sup>54</sup> The use of Al Jazeera as a medium to deliver messages, along with extensive use of the Internet, allowed Al Qaeda to launch salvo after salvo of propaganda at the United States and the international community. These messages often went unanswered by the U.S. government, the military, and the IO community on the national level. Military commanders in Iraq and Afghanistan, operating at the operational and tactical levels, relied on their IO officers to counter these messages; this was accomplished through extensive use of public affairs messages, PSYOP leaflets, broadcasts, and civil affairs engagements with the indigenous population.

The Afghan and Iraqi population, while being addressed through the same mediums (PSYOP, PAO, Civil Affairs) where not responding due to the Al Jazeera news service providing contradictory broadcasts which depicted scenes of dead and captured American and British soldiers, airing audio messages from Saddam Hussein, Osama Bin Laden, and other Al Qaeda members. The use of the influential Qatar-based Al Jazeera, (called the “Arab CNN,” by various members of Al Qaeda) cannot be overstated. The Al Jazeera network beams its message across the Middle East (and now the world) to a reported 35 to 40 million viewers.<sup>55</sup> Al Qaeda’s use of this venue, along with many western media sources (BBC, CNN, and Fox News) in an unwitting manner, has caused military and civilian leaders alike to fall far behind in the battle of the story.<sup>56</sup> Although strategically the U.S. was falling behind, the information operations communities at the tactical and operational levels were competing on an equal pace with the terrorist messages.<sup>57</sup>

To remedy the drastic shortfall at the strategic level, then Secretary of Defense Donald Rumsfeld, announced the development of the Office of Strategic Influence (OSI) October 30, 2001. The office was formed with the intention of providing “direct,

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<sup>54</sup> White House Press Secretary, “In their Own Words: What the Terrorists Believe, what they Hope to Accomplish, and how they Intend to Accomplish it.”

<sup>55</sup> “Online News Hour: Window on the War October 8, 2001,” [http://www.pbs.org/newshour/bb/media/july-dec01/jazeera\\_10-8.html](http://www.pbs.org/newshour/bb/media/july-dec01/jazeera_10-8.html) (accessed June 6, 2008).

<sup>56</sup> Secretary of Defense Robert Gates, “DefenseLink Speech:” <http://www.defenselink.mil/speeches/speech.aspx?speechid=1199> (accessed June 6, 2008).

<sup>57</sup> Author’s personal experience with this in during deployment to OIF 05-06.

unfettered access to global information to contested areas,”<sup>58</sup> but was accused of conducting “black propaganda”<sup>59</sup> (i.e., disinformation) in foreign media.<sup>60</sup> This stirred up controversy and some feared that even hinting at black propaganda would ruin the U.S. military’s credibility. When media picked up information about the supposed “Black propaganda,” the OSI was dismantled striking another blow to the IO community, although former Secretary of Defense Rumsfeld has suggested that its programs remain essentially intact.<sup>61</sup> This ill-fated venture to remedy the shortfall of a strategic IO campaign was sadly ended by the Pentagon’s public affairs staff, rather than any terrorist network. However, the result on the information operation field was the same.

What was becoming even more apparent in the struggle with terrorism was the fact that military commanders at all levels were becoming more reliant on their IO officer and the synchronized IO campaigns. However, the critical shortage of qualified officers in the U.S. military inventory left military commanders using proxies with no experience to conduct information operations in combat. The use of untrained personnel led to the misuse of the term IO, as all things nonlethal and the belief that IO was some kind of magic bullet to help commanders achieve objectives. Commanders came to believe that IO officers, who tried to synchronize the oddball collection of military capabilities, did not require resources or emphasis from the commander to accomplish the mission.<sup>62</sup> This however was wrong, as the IO community identified four trends after the first

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<sup>58</sup> “How the Rocket Scientists got Into the Hearts-and-Minds Game - US News and World Report,” US News & World Report, <http://www.usnews.com/usnews/news/articles/050425/25roots.b1.htm> (accessed June 5, 2008).

<sup>59</sup> While U.S. law states that the military may not place “black propaganda” in U.S. media, but it is not prohibited from doing so in foreign media, including in allied countries

<sup>60</sup> Tom Carver, “BBC News | AMERICAS | Pentagon Plans Propaganda War,” BBC News <http://news.bbc.co.uk/2/hi/americas/1830500.stm> (accessed June 5, 2008).

<sup>61</sup> Donald Rumsfeld, “Secretary Rumsfeld on DARPA's Total Information Awareness,” <http://www.fas.org/sgp/news/2002/11/dod111802.html> (accessed June 6, 2008).

<sup>62</sup> The core elements of information operations are considered as; electronic warfare, computer network operations, psychological operations, military deception and operations security.



couple of years of the War on Terror<sup>63</sup>. First, Army Doctrine was not adequate to provide guidance for shaping the information environment in full spectrum operations at all Army echelons. Second, Intelligence support to IO was inadequate. Third, units lacked the resources to integrate IO into their operations. Lastly, commanders, staffs and IO officers did not understand how to integrate IO with all the tools (Civil Affairs, Public Affairs, maneuver, fire support, logistics, etc.) available to them to shape the information environment in which they would operate.<sup>64</sup> These trends led to Army leaders calling for another revision in the Army's capstone doctrine FM 3-0 as well as the doctrine guiding information operations FM 3-13.

These comments, along with a constant volley of information attacks, by Al Qaeda central and terrorist groups in the theaters of operation, led senior officials like Secretary Rumsfeld to state, "Our enemies have skillfully adapted to fighting wars in today's media age, but for the most part we — our country, our government — has not adapted"<sup>65</sup>, and "the al Qaeda terrorist network and other "extremist" movements "have successfully . . . poisoned the Muslim public's view of the West."<sup>66</sup> This prompted Secretary Rumsfeld to publish the information operations roadmap that defined the U.S. military's approach to information warfare, with an emphasis on the Internet, followed by an updated version of FM 3-13, the Army's doctrine for IO. While this updated information strategy set forth guidelines from the strategic level it did little to remedy the confusion among commanders and practitioners.

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<sup>63</sup> Center for Army Lessons Learned, Operation Iraqi Freedom (OIF) CAAT II Initial Impressions Report 04-13 (Fort Leavenworth: May 2004), 1–27; Center for Army Lessons Learned, Information Operations CAAT Initial Impressions Report 05-03 (Fort Leavenworth: May 2005), iv, 1–2, 49–52; Center for Army Lessons Learned, Initial Impressions Report: Stability Operations–Support Operations Operation Iraqi Freedom (Fort Leavenworth: December 2003), 22; OEF/OIF CAAT Initial Impressions Report: Stability Operations – Support Operations (Fort Leavenworth: December 2003), 61.

<sup>64</sup> Ibid.

<sup>65</sup> Amy Westfeldt, "Rumsfeld Says Extremists Winning Media War," San Francisco Chronicle, sec. 2008, Friday, February 17, 2006 (accessed June 6, 2008).

<sup>66</sup> Ann Scott Tyson, "Rumsfeld Urges using Media to Fight Terror," The Washington Post, sec. 2008, Saturday, February 18, 2006 (accessed June 6, 2008).

## **7. Global War on Terrorism (Operation Iraqi Freedom)**

During OIF and OEF (2003 and on) commanders and IO practitioners alike, used their own experience and bias to define how IO should be incorporated into combat operations. While some units achieved success, others saw minimal results, because they did not believe in IO, or the personnel running the programs were inexperienced.<sup>67</sup> Because commanders struggled with IO, they each developed their own methods to integrate IO into combat operations<sup>68</sup>. Most failures integrating IO were the result of the commander failing to visualize the complete operational environment and the IO officer failing to assist the commander. As a result, IO was viewed in terms of good news (inform), rather than change the perceptions of the target audiences. This led senior leaders to call for another visit to doctrine to redefine IO and its use.

The revisionism of current Army doctrinal manuals continues to cause confusion within the Army and the IO community, and has had a cascading effect on the military institutions. Because current doctrine is inadequate, training programs based on doctrine are not adequately preparing commanders or their staffs for the task of integrating IO into operations. In addition, IO practitioners are not being trained to understand and explain what IO is and how to integrate it. The last update of FM 3-0 (2008) does a better job of integrating IO into operations, however, it does little to outline what the new “information” is and how commanders are to use it. Authors of the doctrine state that the new FM 3-13 (currently under revision) will define what IO is and how commanders are to use it.

The rewrite of FM 3-13 has caused a firestorm among leaders within the Army as well as within the IO community itself. While IO warriors continue to wage the battle on the terrorists throughout the world, there is a battle going on within the Army to redefine IO and how utilize it. Two schools of thought have divided the IO community on the

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<sup>67</sup> Center for Army Lessons Learned, Operation Iraqi Freedom (OIF) CAAT II Initial Impressions Report 04-13(Fort Leavenworth: May 2004), 1 - 27; Center for Army Lessons Learned, Information Operations CAAT Initial Impressions Report 05-03 (Fort Leavenworth: May 2005), iv, 1 – 2, 49–52; Center for Army Lessons Learned, Initial Impressions Report: Stability Operations–Support Operations Operation Iraqi Freedom (Fort Leavenworth: December 2003), 22; OEF/OIF CAAT Initial Impressions Report: Stability Operations – Support Operations (Fort Leavenworth: December 2003), 61

<sup>68</sup> Ibid.

strategic vision of IO. The first believes that operations should be conceived in terms of affecting human will and decision making as their ultimate purpose.<sup>69</sup> The second view asserts there is a qualitative and categorical difference between combat operations and “information operations.” It contends operations are focused on operational objectives, which are derived directly from the assigned mission and which may or may not be “cognitive.”<sup>70</sup> This division among IO professionals has led to a division among the senior leadership as well, as both schools of thought have sought to gather support from general officers at varying levels. To date this internal fight has yet to cause disruption among the operations being conducted within the theaters of operation. However, it is evident that the terrorists’ ability to conduct unimpeded operations, in many of the information domains, along with cognitive effects on local populations has caused confusion within the U.S. military. This is evident by both military and civilian leaders pressuring information operators to speed the evolution of the field, to counter and ultimately defeat Al Qaeda and associated groups. This in turn has led to the division mentioned above and a rivalry between those in the IO field, and senior army officers solicited by each side. The transition to the five Army information tasks, from the core supporting and related activities, in chapter 7 of the 2008 version of FM 3-0 has only exacerbated this division.

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<sup>69</sup>United States Army Information Operations Proponent. Information and Cyberspace Symposium, 2008. Fort Leavenworth, KS: United States Army Information Operations Proponent, 2008

<sup>70</sup> Ibid.

### **III. RELEVANT THEORIES AND INFORMATION OPERATIONS**

#### **A. INTRODUCTION**

Looking through two frames of reference (organizational and informational), this thesis explores which frame of reference has a greater ability to explain the level of integration of IO into combat operations. Using organizational theory as the first frame of reference, this thesis outlines how organizations operate in the spectrum of simple to complex and stable to unstable environments military commanders face in the operational environment.

The second frame of reference uses information theory as presented by authors such as Claude Shannon, John Diebold, and Martin Libicki. This thesis examines whether external forces and the need to address them through the physical, cognitive and informational dimensions, influences the integration of IO.

Finally, this chapter develops a framework to analyze four case studies and the ability of military organizations in the cases to integrate information operations into combat operations; the framework uses propositions based on the two frames of reference (organizational and informational) discussed during the chapter.

#### **B. ORGANIZATIONAL FRAME OF REFERENCE**

The first frame of reference addresses the organization, its structure, and environmental uncertainty. Organizational leaders look to direct, or pattern, the activities of a group of people or staff members toward a common outcome (goals). The achievement and effectiveness of the common goals is greatly affected by how this pattern is designed and implemented. Patterns of activity that are complementary and interdependent are more likely to result in the achievement of intended outcomes.

From a rational, structural perspective, organizational design begins with the creation of a strategy, or a set of guidelines, by which members choose appropriate actions. To organize, institutions connect people with each other in meaningful and purposeful ways. Organizational structure defines the formal relationships among people

and specifies both their roles and their responsibilities using guidelines, procedures, policies, doctrine, and special instructions while administrative systems govern the organization. Each element should support each other and together, they must support the organization's purpose.

## 1. Organizational Structure

Every organization has a starting point and faces varying degrees of complexity and uncertainty as the business grows. How an organization is structured can help minimize the environmental uncertainty (complexity) and reduce the impact on the efficiency of the organization. Using a scale from the simple to complex (Figure 1), Mintzberg places organizations in one of four types Machine, Simple, Professional, Adhocracy based on the level of uncertainty in the environment.

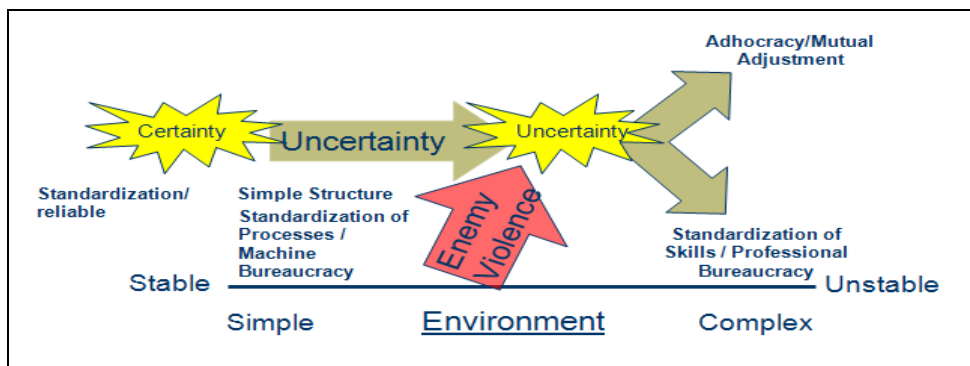


Figure 1. Organizations faced with complexity

The first side of the scale is the simple domain where environmental factors are certain and organizations have a centralized control. Common characteristics of organizations in the simple domain tend to have a narrow specialization of jobs, a large operating core, require a minimal amount of skill, and have little training for the operating base. Within the simple domain, two organizations exist, the machine bureaucracy and simple structure.<sup>71</sup>

<sup>71</sup> Henry Mintzberg, *Structures in Fives: Designing Effective Organizations* (Englewood Cliffs, NJ: Prentice Hall, 1993).

The first organization is what Mintzberg refers to as the simple structure. This organization has few leaders or top managers and a core group of personnel completing the basic work (much like the Army hierarchical structure). Decision-making is likewise flexible, with the centralization of power allowing for quick response. Strategic vision falls solely on the chief executive and tends to be highly intuitive, often thriving on uncertainty and oriented to the aggressive search for opportunities. This type of organization has few specialized or formalized procedures and makes minimal use of planning, training, and the liaison devices. It is, above all, organic. The downfall of this organization is due to aging and growth of the company. Simple structures are often young and small, allowing for rapid changes within the environment they operate. As organizations expand, the need to develop SOP's and formalize procedures reduces the fluidity of the organization.

The second organization discussed in the simple environment is the machine bureaucracy. This organization is where outside factors have a low impact and organizations develop standard operating procedure (SOP's).<sup>72</sup> These SOP's ensure that individuals or subordinate units who are empowered to do so, complete tasks and work. This empowerment leads to institutionalization when subordinates and staff elements within the organization take ownership of the SOPs. This type of organization is efficient and produces reliable outcomes for the organization with the tendency to integrate vertically. This vertical integration means that the hierarchy has all the formal power concentrated at the top, with a substantial group of mid level managers to reduce uncertainty and to handle the standardized process of work. Organizations of this type emphasis standardization of work for coordination which results in highly specialized jobs capable of mass production with speed and efficiency.

The second side of the scale is the complex domain where environmental factors are uncertain and organizations tend to have decentralized control. Common characteristics of organizations in the complex domain tend to have a wide variety of

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<sup>72</sup> Henry Mintzberg, "Organization Design: Fashion or Fit," Harvard Business Review, 1981, 7.

specialized jobs, high numbers of liaison devices, and require a high amount of skill and training for the operating core. Within the complex domain, two organizations exist, the professional bureaucracy and adhocracy<sup>73</sup>.

The first organization in the complex domain is the professional bureaucracy. This organization relies on the standardization skills rather than output. The key component of this organization is the operating core, which is highly trained, educated, and given a high degree of autonomy. According to Mintzberg, these organizations have a wide span of control with moderately large staffs, but have weak vertical and horizontal integration.<sup>74</sup> As the complexity increases, the organization must adjust to compensate in order to retain its proficiency by decentralizing power to a professional work force responsible for handling the workload with technical systems that are simple and non-regulating.<sup>75</sup>

The second organization discussed in the complex domain is the adhocracy. This organization relies on a decentralized control allowing skilled “organic” managers and multidisciplinary teams to control operations. When faced with surprise, uncertainty, and complexity the leadership in this type of organization will be overwhelmed with the volume of information and will require an increase in the number of information processes to understand the environment. This increase requires professional teams of leaders or operators with more autonomy, these teams empowered by senior leaders are required to assist as complexity increases. This fusion of experts, drawn from different specialties, allows smooth functioning, creative teams to attain strategic goals.<sup>76</sup> Adhocracy coordinates primarily by mutual adjustment among all of its parts, calling especially for the collaboration of its support staff. Jobs are specialized, involving extensive training but little formalization, liaison devices are used extensively, and the structure is decentralized selectively in both the vertical and horizontal dimensions.

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<sup>73</sup> Henry Mintzberg, “Organization Design: Fashion or Fit,” *Harvard Business Review*, 1981, 7.

<sup>74</sup> *Ibid.*

<sup>75</sup> *Ibid.*

<sup>76</sup> *Ibid.*

In a complex environment, the organization's performance is dependent upon the execution of facilitative and operational efforts. The traditional theory of organizational interdependence addresses the extent to which departments or staffs depend on each other for resources or materials to accomplish their tasks, much as military commanders depend on other subordinate commanders and staff within the organization to execute their orders.<sup>77</sup> Therefore, the management of interdependence is a critical aspect of performance in organizations in complex environments.

The need to manage interdependence through facilitative effort has led to the emergence of informal relationships in complex organizations. Informal organization serves the purpose of coordinating interdependent elements within the organization. Given the nature of interdependence and the informal mechanisms that seek to manage it, exchanges between commanders and subordinates within the organization acquire a social rather than a work related characteristic. Social exchanges avoid the explicit and center on the implicit contracts, leaving future obligations relatively ambiguous. This open-ended form of reciprocity enables staff and subordinates to have a stake in informal relationships. Allowing recurrent transactions to establish a stable pattern of cooperation emerges between interdependent commanders, staffs, and subordinates. These issues suggest that it is more useful to view an organization as a network of interdependent roles rather than as a nexus of contracts.<sup>78</sup>

## **2. Environmental Uncertainty**

Every organization has to deal with situations where little information about the environment, which is in a state of flux and is largely unpredictable, is available. Known as uncertainty, leaders seek to reduce the unknown by taking various measures to ensure organizations maintain efficiency and productivity. According Jay Galbraith "The

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<sup>77</sup> Theory by Interdependence by James Thompson as presented by Richard L. Daft, *Organizational Theory and Design*, 6th ed., (Cincinnati, OH: South-Western College Publishing, 1998), 138.

<sup>78</sup> V. Nilakant, "Agency Theory and Uncertainty in Organizations: An Evaluation." CNET Networks, Inc. [http://findarticles.com/p/articles/mi\\_m4339/is\\_n5\\_v15/ai\\_16548966/pg\\_14](http://findarticles.com/p/articles/mi_m4339/is_n5_v15/ai_16548966/pg_14) (accessed October 13, 2008).



greater the uncertainty of the task, the greater the amount of information that has to be processed between decision makers during the execution of the task to get a given level of performance.”<sup>79</sup>

The literature on environmental uncertainty can be organized into two categories: contingency views and perceptual views. Contingency views are concerned with reading the environment and fitting the organization to its reality. Uncertainty (and implicitly environmental uncertainty) was a major determinant of the amount of information processing needed to achieve a given level of performance. The perceptual views of environmental uncertainty are process oriented, in that they seek to describe the stages involved in noticing, interpreting, or learning the environment in order to reach closure to its meaning.<sup>80</sup> Environmental uncertainty is not only an external force but also be viewed internally as well.

Uncertainty can be viewed as due primarily to complexity and instability from outside the organization. The larger organization surrounding the execution of operations is complex due to the varying number and divergence of the subordinate organizations and unstable due to the instability of doctrinal tasks. The absence of policy and guidance, as well as the absence of clear outlined goals while developing and waging a strategy, has the potential to underscore the ability of organizations to operate in an effective and synergistic manner. The two primary ways the environment influences organizations is through the need for information and resources from the environment.<sup>81</sup> The lack of information or resources increases the level of uncertainty within the organization. Daft’s observation considers organizational uncertainty as a product of available or unavailable external environmental information and resources.

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<sup>79</sup> Jay Galbraith, “Organization Design: An Information Processing View.” *Interfaces*, Vol 4, Number, May 1974.

<sup>80</sup> Edwin A. Gerloff. “Three components of perceived environmental uncertainty: an exploratory analysis of the effects of aggregation.” *Journal of Management*. FindArticles.com. December 5, 2008. [http://findarticles.com/p/articles/mi\\_m4256/is\\_n4\\_v17/ai\\_11817389](http://findarticles.com/p/articles/mi_m4256/is_n4_v17/ai_11817389) (accessed November 5, 2008).

<sup>81</sup> Richard L. Daft, *Essentials of Organization Theory & Design*, Mason, OH: South-Western College Publishing, 2003, 54.

In any organization, uncertainty can also come from complexity and instability from within the organization as well. At the same time, uncertainty at one level can be derived from deficiencies in information and resources from the external environment of higher level of a hierarchical organization. The environment surrounding the execution of operations is complex due to the varying number and divergence of the subordinate organizations, and unstable due to the instability of doctrinal tasks. The absence of policy and guidance, as well as the absence of clear outlined goals while developing and waging a strategy, has the potential to underscore the ability of organizations to operate in an effective and synergistic manner.

However, if we look at the basic problem we see that uncertainty, which is responsible for the information demand, can be reduced. As a result, organizations should not get obsessed on the generation of information but should consider ways of reducing needs for information flows. There are instances where the receipt of information does not mean that uncertainty is resolved. The latest technology revolution only exacerbates the amount of information exchanged between organizations, resulting in information overload. With this elevated amount of information, the difficulty becomes turning raw information into knowledge that is usable. Even with the increased use of automation to help filter relevant information, volumes of raw information confront organizations.

Additionally, our tendency is to generate swelling amounts of information to reduce the uncertainties we face in today's turbulent environment. However, due to the nature of the environment change will be inevitable. No matter what an organization may do to reduce uncertainty and increase predictability, there will always be gap of the information required and the information needed.<sup>82</sup> This is because information is a fluid source that can be exchanged or interchanged with other information, and may become obsolete or untrue with time, thus decreasing its value. This is not to say that organizations will never mitigate and reduce the information gap

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<sup>82</sup> Jay Galbraith, "Organization Design: An Information Processing View." *Interfaces*, Vol 4, Number, May 1974.

### 3. Organizational Propositions

In this section of the thesis, organizational concepts and theories are used to develop propositions that help understand the influence that organizational theory has on the integration of IO. Using organizational theory can help explain the behavior of military units when faced with increased complexity and environmental uncertainty in combat. The following propositions are the result of the authors' research.

i. *The more complex the conflict, the more likely the integration of IO.*

Effective organizations facing complex environments adapt by becoming more internally complex themselves. They horizontally differentiate. In the case of the military, they create more specialized units and more military occupational specialties but to be efficient, they should not become more complex than they need to be to accomplish their tasks. To avoid overloading their leaders, they must decentralize decisions to the operational core and invest in high levels of training and education for the operators, who are then empowered to use their judgment to make decisions. Because they are specialized, they require higher levels of horizontal and vertical integration (reference Lawrence and Lorsch). To the degree their work tasks require operators and units to be highly interdependent, passing work back and forth to each other, to that degree planning and standard operating procedures must be supplemented by vertical, and especially, horizontal coordination mechanisms (e.g., integrator roles, liaison roles, matrix structures) (Reference Galbraith and Thompson).

ii. *Highly trained "elite" units are more likely to integrate IO into combat operations.* Both Weber and Mintzberg discuss ideas that apply functional specialization (Special Forces) to organizations as well as relations between larger units or divisions of an organization. Special Operations forces, which have higher levels of professionalism, training, and education, are better suited to operate in complex environments where people are empowered to use their professionalism, training, and education. Defining the organizational structure ensures that resources and energy are not misguided and misused.

iii. *The attitude of the military command's commitment towards IO, positive or negative, will determine whether integration occurs.* Military commanders who do not believe in the concept of IO will not apply resources, time, and energy into the integration into combat operations. Leaders who are not committed to the integration of IO will see a lower performance from it during combat operations.

iv. *Adversity will spur U.S. forces to integrate IO into combat operations.* The perceptual view of environmental uncertainty is process oriented and seeks to describe the stages involved in noticing, interpreting, or learning the environment in order to reach closure as to its meaning. This proposition proposes that military organizations faced with high levels of uncertainty will integrate IO into operations.

### **C. INFORMATIONAL FRAME OF REFERENCE**

To examine the impact of information theory requires one to understand the context in which the theory is used. With the development of full spectrum operations in 2001, the concepts of information operations and the theory associated with it became more prevalent.<sup>83</sup> Following the full spectrum guidance that there is but one operational environment in which the operations are conducted. The operational environment is “a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander.”<sup>84</sup> As illustrated in Figure 2, it encompasses physical areas and factors (of the air, land, maritime, and space domains) and the information environment.<sup>85</sup> Included within these domains are the systems of friendly, neutral, and adversaries that are relevant to specific a given operation.

Operations occur within a complex framework of environmental factors that shape their nature and affect their outcomes. This requires a broad understanding of the strategic and operational environment and their relevance to each mission. This includes the characteristics of the particular operational environment as it relates to each mission,

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<sup>83</sup> In 2001, FM 3-0 introduced the concept of Full Spectrum Operations into the Army capstone manual.

<sup>84</sup> Joint Publication 3-0, Doctrine for Joint Operations. Washington, DC: Joint Staff, September 10, 2006.

<sup>85</sup> Ibid.

as well as aspects of the environment that become essential elements in shaping how Army forces conduct operations.<sup>86</sup> These factors include six elements that combine to form the operations environment; they are Political, Military, Economic, Social, Infrastructure, and Information. Information operations fall within the concept of the information environment that is part of the operational environment construct.

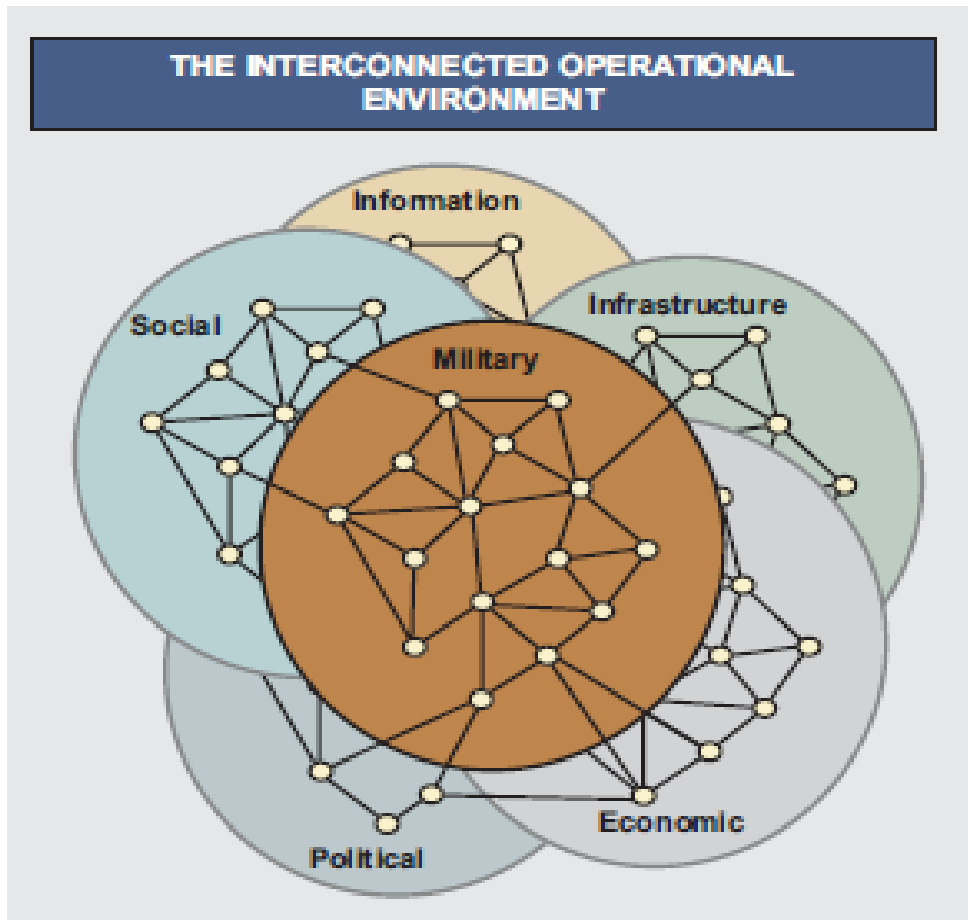


Figure 2. The Interconnected Operational Environment

<sup>86</sup> Department of the Army. Field Manual 3-0, Operations. February 27, 2008. Washington, D.C.: Headquarters, Department of the Army, 2008.  
[https://akocomm.us.army.mil/usapa/doctrine/DR\\_pubs/dr\\_aa/pdf/fm3\\_0.pdf](https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm3_0.pdf) (accessed February 27, 2008).

## **1. Information Environment**

To drill deeper into the integration of IO, we must continue to gain an understanding of information theory and the level at which it is employed. The information environment defined is the “as the aggregate of individuals, organizations, and systems that collect, process, disseminate, or act on information.”<sup>87</sup> This environment is where individuals, groups, leaders, and decision makers use, create, display, and distribute information so others may see, feel, or make a decision on the information received. Information operations and all activities associated with information operations occur within the broader context of the information environment.

The information environment recognizes the critical role that information itself, as well as the information systems, play in today’s advanced societies as they progressed along a continuum from agrarian, to industrial, to the information age.<sup>88</sup> This environment pervades and transcends the boundaries of land, sea, air, and space while having a significant effect on the outcome of operations. Within this environment exist three conceptual dimensions: physical, information, and cognitive.

### ***a. Physical***

The physical dimension is the tangible or real world, where things are experienced by one of the five senses (see, hear, smell, touch, and taste). It is the material part of the information environment that overlaps with the operating environments of land, sea, air, and space. The physical dimension includes geography (terrain), weather, populace, and civil infrastructure (including communications networks and media) each of which is important to combat and maneuver operations. Military leaders often gauge military maneuver and combat operations success or failure in the physical dimension by the items listed above.

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<sup>87</sup> Department of the Army. Field Manual 3-0, Operations. February 27, 2008. Washington, D.C.: Headquarters, Department of the Army, 2008.  
[https://akocomm.us.army.mil/usapa/doctrine/DR\\_pubs/dr\\_aa/pdf/fm3\\_0.pdf](https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm3_0.pdf) (accessed February 27, 2008).

<sup>88</sup> Information Operations Primer, AY 07, November 2006,  
<http://www.carlisle.army.mil/usawc/dmspo/Publications/Publications1.htm#CampaignPlanningPrimer>  
(accessed May 20, 2008).

This dimension is also where the hardware of information systems (routers, switches, cables, and computers) and the networks that connect these systems reside and operate. The characteristics listed above also affect the use of information system assets and the linking of information systems into networks.

***b. Information***

Information operations seek to affect the content and flow of information produced, shaped, transmitted, and collectively shared in this dimension. This theoretical layer includes elements relevant to the electronic collection, transmission, processing, storage, and display of information that can be electronic, human-to-human, or a combination of both. It describes the formal and informal communications infrastructure, networks, kinship and descent relationships, licit and illicit commercial relationships and, social affiliations that collectively create, process, manipulate, transmit, and share information in an operational area. As viewed in figure 3, the information dimension is the conduit that links the physical world with the human consciousness of the cognitive dimension, it can be the information itself or both as a source of input and to convey output.

Vital characteristics in this dimension include those essential to information management and command and control (C2). The characteristics are information quality (accuracy, timeliness, relevance, and consistency), distribution (range, sharing, and continuity), and interaction (exchange or flow of information). These characteristics affect information content and the functions of information systems.

The information dimension typically falls into one of two schools of thought, information as the message and information as the medium.<sup>89</sup> Following the information as the message school of thought leads to the belief of IO as an integrating concept for all operations. The rational extent of such a line of thinking could produce a

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<sup>89</sup> There are two generally accepted theories of information. First, information as message-regards information as an immaterial message or signal that contains meaningful content that a sender can transmit to a receiver. Second, information as medium-relates information to the message but also views information as a system or conduit that transmits a message from sender to receiver. See Arquilla, John, and Ronfeldt, David, In Athena's Camp: Preparing for Conflict in the Information Age (Santa Monica, CA: RAND, 1997), pages 145-152.

fundamental transformation of warfighting and warfare. This change would state that warfighting along with all other forms of human interaction fall under the construct of communication.

The second school of thought leads some to believe in a more solid and controllable concept that *IO is a capability*. Following this school of thought leads to the development of information weapon systems in a traditional manner that is integrated into the larger scheme of warfighting. This view simply integrates new information age technological capabilities underneath the timeless understanding of combat.

*c. Cognitive*

The cognitive dimension exists in the mind. The most important of the three dimensions according to JP 3-13, this dimension is where human beings process information received according to their unique set of norms, morals, beliefs, culture, and values.<sup>90</sup> These attributes act as a filter of the information and provide a sense of meaning and context that is evaluated and processed to form a decision. This decision is then communicated back through the information dimension to the physical world.

It should be noted that the cognitive dimension cannot be directly attacked but must be influenced indirectly through the physical and information dimensions.

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<sup>90</sup> Joint Chiefs of Staff. Joint Publication 3-13, Information Operations, February 13, 2006. (Washington, D.C.: Joint Staff, 2006), [http://www.dtic.mil/doctrine/jel/new\\_pubs/jp3\\_13.pdf](http://www.dtic.mil/doctrine/jel/new_pubs/jp3_13.pdf) (accessed March 6, 2008).



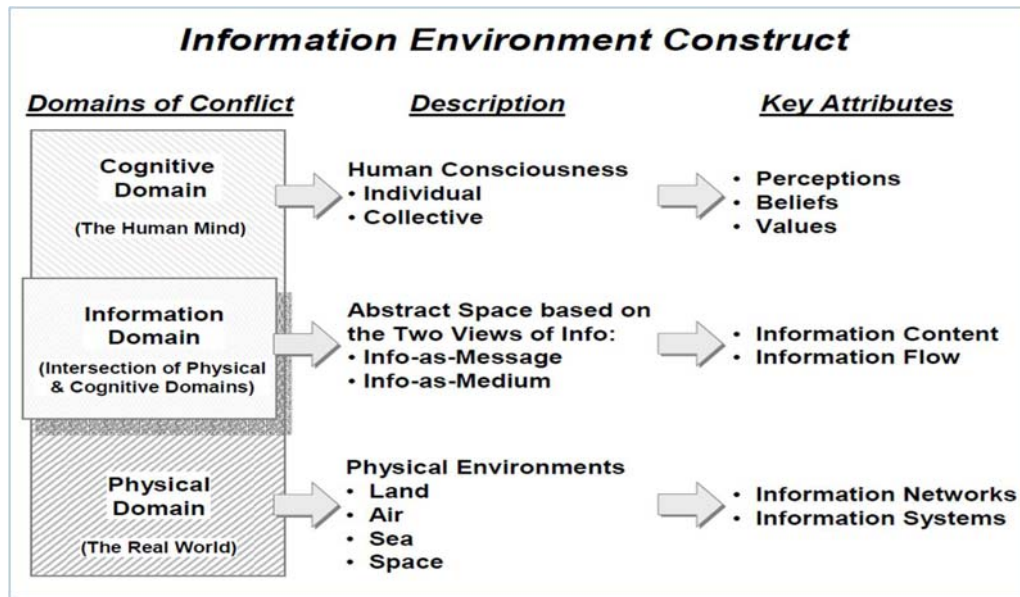


Figure 3. The Information Environment Construct<sup>91</sup>

## 2. Informational Propositions

IO theory requires the knowledge of the information environment that encompasses the three domains physical, cognitive, information. These factors drive the integration of IO into combat operations.

i. Greater availability of information technology fosters the integration of IO. This proposition follows the physical dimension belief that a greater use of computer or social networks will allow greater integration.

ii. The more extended the operations, the more likely the integration of IO. This proposition follows the second school of thought in the information dimension that information used as a medium leads to the belief that IO is a capability not the message.

<sup>91</sup> Marc Romanych, "Applying the Domains of Conflict to Information Operations" 10TH International Command and Control Research and Technology Symposium the Future of C2. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA463046&Location=U2&doc=GetTRDoc.pdf> (accessed October 13, 2008).

iii. More networking will foster integration. This proposition follows the physical dimension that military leaders often gauge military maneuver and combat operations success or failure in the physical dimension by the items listed above.

iv. Using a netcentric approach to warfare allows easier integration for units. This proposition follows the use of cognitive and physical dimensions to integrate IO.

#### **D. CONCEPT**

Operations in the Balkans, Afghanistan, Philippines and Iraq have afforded the military the opportunity to conduct IO and to document experiences and lessons from these real world operations. A number of experiments and exercises also have explored new military concepts that included the use of non-kinetic IO as a means of national power to influence adversary behavior and actions. Yet the military still struggles with the integration of IO from the planning of operations until the completion of phase four.

Using the organization and information theories described previously to generate a list of propositions provides a more thorough understanding of what is required to integrate IO into combat operations. By validating propositions introduced in this chapter through the four case studies, each theory gains credibility for each proposition confirmed. The result will provide a clearer picture as to which theory influences the integration of information operations in combat operations.

#### **E. METHOD**

Looking through two frames of reference (organizational and informational), this thesis will try to determine which frame of reference has a greater ability to explain how and why IO is integrated into combat operations. The first frame of reference utilizes the propositions developed from Henry Mintzberg and Richard Daft's organizational theories. This thesis will determine if military commanders and their organizations are influenced by operating in the spectrum of simple to complex and stable to unstable

environments. Second, utilizing propositions developed from literature by Claude Shannon, John Arquilla, and Martin Libicki, this thesis will determine if external forces influence the integration of IO.

Utilizing the aforementioned theories, four different case studies were chosen in which IO was integrated into operations; Bosnia, Operation Enduring Freedom (Afghanistan), Operation Enduring Freedom (Philippines), Operation Iraqi Freedom. These four case studies were chosen for the following reasons. First, each of the cases involved the use of an information operations organization at various levels of the command structure. Second, each were considered major operations carried out by U.S. military forces with integrated information operations from the strategic to the tactical level with varying degrees of success. Third, information operations doctrine covers all four conflicts but with different versions, FM 100-6 for Bosnia, OEF (Afghanistan), OIF-Philippines and, FM 3-13 for OIF, thus providing the ability to compare the different military IO organizational structures and IO theory during each of the four conflicts. Lastly, while each of the four conflicts integrated IO plans and organizations into their operations, the size of the conflicts and the type of military personnel that carried out the operations were different. During OEF and the Philippines, special operations forces were largely in the lead while in Bosnia and OIF, conventional forces were the bulk of the forces employed. This contrast will allow for the comparison of not only the IO theory but the organization structure of SOF versus conventional.

## **IV. INTEGRATION OF IO IN COMBAT**

### **A. INTRODUCTION**

In previous chapters, this thesis has addressed the historical and theorized issues the Army has faced while trying to integrate IO into field operations. Using the frames of reference and propositions developed in the Chapter 3, this chapter will explore which frame of reference has greater ability to explain the integration of IO into combat operations. Organizational theory shows a tendency for the organizations faced with complex environments to decentralize, to increase the number of information processes, and to rely on staffs and subordinates empowered by senior leaders to assist as complexity increases. Information theory shows a tendency to focus on information as the message and information as the medium, using three dimensions of physical, information, and cognitive to address the complex problems faced in today's operational environment, thus encouraging more integration.

### **B. BOSNIA (OPERATIONS JOINT ENDEAVOR, GUARD & FORGE)**

On August 30, 1995, NATO began "Operation Deliberate Force" when aircraft began attacking Serb positions around Sarajevo. This operation allowed the Bosnian-Croat coalition to make significant gains and set the conditions for a cease-fire on October 5, leading to the Dayton Peace Accords. To implement the provisions of the Accords, the Implementation Force (IFOR) deployed to the region. Consisting of 60,000 troops from NATO and non-NATO states, IFOR's primary tasks included enforcing compliance with the cease-fire, withdrawal of forces from the agreed cease-fire zone of separation, collection of heavy weapons into cantonment sites and barracks, conditions for the safe, orderly, and speedy withdrawal of UN forces.<sup>92</sup>

The deployment of the 1<sup>st</sup> Armored Division set the stage for information operations to make its debut in modern conflict. The early focus of Task Force Eagle aimed at securing heavy weapons systems and separating the former warring factions to

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<sup>92</sup> Larry K. Wentz, "Lessons from Bosnia: The IFOR Experience" <http://call.army.mil/> (accessed December 11, 2001).

their respective sides of a newly established 4-kilometer wide “zone of separation.” By April 29, 1996, IFOR accomplished all provisions of the military annex of the Dayton Accords, changing the main effort to garnering support for the provisions of the Dayton Accords. This was difficult due to former warring factions working to discredit IFOR and the Dayton Accords. The frustration is seen in U.S. Ambassador Richard Holbrooke’s June 1996, letter to President Clinton, stating, “[Bosnian Serb Leader] Karadzic uses television and controlled media to prevent local reconciliation efforts.”<sup>93</sup>

Entering Bosnia, U.S. Forces faced a complex and unstable environment as they moved to enforce the Dayton Peace Accords. First, the Dayton Accords did not designate a single authority to synchronize the military, political, and humanitarian aspects of the mission enforcing the accords. Second, U.S. Forces in Bosnia embarked on the task of building support for the Dayton Accords utilizing information operations when no clear doctrine for IO existed. U.S. forces worked for six months using a ‘trial-and-error’ approach to IO planning<sup>94</sup> before the Army’s first doctrinal manual on information operations appeared.<sup>95</sup> Third, the U.S. military faced three warring factions (Bosniac, Serb, and Croat) each with different ethnic, religious, and political objectives. Last, the operational environment of Bosnia played a major role in the fight for peace. These four factors are by no means the only factors that led to environmental uncertainty but showed how complex and unstable the U.S. mission in Bosnia was.

Task Force Eagle officers noted, “The need for non-lethal attack options revealed the void in existing tactics, techniques and procedures (TTP).”<sup>96</sup> With no clear guidance and no doctrine, Task Force Eagle relied on historical hierarchical organizational forms and doctrine. However, given the restraints on the organization by Rules of Engagement (ROE) and the mission set of peace enforcement, U.S. forces sought to use non-kinetic/

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<sup>93</sup> Richard Holbrooke. *To End A War* (New York: Random House, 1998): 340.

<sup>94</sup> Center For Army Lessons Learned, “IO in a Peace Enforcement Environment” Newsletter no. 99-2 <http://call.army.mil/call.html> (accessed November 7, 2001).

<sup>95</sup> The U.S. Army formally introduced the concept for Information Operations in 1995 when Pamphlet 525-69, *Concept for Information Operations* was released.

<sup>96</sup> Lt. Col. Steven Curtis, USA, Cpt. Robert A.B. Curtis, USA, and Maj. (Ret.) Marc J. Romanych, USA, “Integrating Targeting and Information Operations in Bosnia,” *Field Artillery* (July-August 1998): 32.

influential means. This change in historically lethal tasks of finding, fixing, and eliminating the enemy moved to tasks that informed, deceived, exploited, and influenced the former warring factions and the civilian population. The change in task was not easy, as Colonel Mark T. Kimmitt (Commander of the Task Force Eagle Artillery) commented, “In peace enforcement, the goal is not to defeat, destroy, or delay things. The goal is to persuade, compel, or moderate behaviors.”<sup>97</sup>

With no doctrinal guidance on IO, units sought to reduce the uncertainty by utilizing organic tasks and organizations to function in the information environment. The fire support element became the primary benefactor to reduce the uncertainty of IO when “the Commander of TFE and MND-N placed IO under the control of the [Deputy Fire Support Coordinator] and used the Division [Fire Support Element] as its base structure” returning to an organizational structure he understood.<sup>98</sup>

Task Force Eagle organized the battle staff to integrate IO into overall operations to combat the FWF. First with the fire support element and later with a field support team (FST) from the Land Information Warfare Agency (LIWA) which assisted in the unfamiliar doctrinal area and reduced the uncertainty of conducting IO in Bosnia. To further drive the uncertainty into a stable-complex dimension, U.S. forces established the Information Operations Working Group (IOWG) chaired by the LIWA FST commander. This initially ad hoc working group met weekly to coordinate IO efforts and consisted of representatives from the various staff elements and subordinate unit representatives. While IO was the *primary* means of accomplishing the Task Force mission, integration was led by an officer not organically assigned to the unit and planned by an ad hoc committee (IOWG) acting with limited doctrinal guidance. U.S. military leaders seeing the inherent weaknesses in this structure moved to “normalize” the integration of IO into the established battle rhythm.

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<sup>97</sup> Col. Mark T. Kimmitt, USA, “Fire Support in Bosnia-Herzegovina: An Overview,” Field Artillery 4(July-August 1998): 30.

<sup>98</sup> Tactics, Techniques and Procedures for Information Operations (IO) NEWSLETTER NO. 99-15 Center for Army Lessons Learned, “Civil Affairs and Public Affairs Support to IO,” <http://call.army.mil/call.html> (November 7, 2001).

Perhaps the most vital lesson learned was that the synchronization of Public Affairs (PA), Civil Affairs (CA), and Psychological Operations (PSYOP) as non-lethal weapons was indispensable in conducting effective IO. Civil Affairs played a remarkable role in Bosnia by coordinating the humanitarian relief effort, assisting and educating the newly formed Bosnian government, and aiding in the re-establishment of government services. As Captain Tom Anthony, a Civil Affairs officer who served in Bosnia states, “Simply put, our job was to be facilitators. At one end of the spectrum were large projects to help villages whose whole infrastructure needed to be fixed, and at the other were things like getting firewood to senior citizens in the mountains who couldn't chop their own as winter set in.”<sup>99</sup> The second lesson was the incorporation and publication of information that was timely, accurate, and relevant. To accomplish this task, IFOR conducted an information campaign designed to seize and maintain the initiative by imparting timely and effective information within the commander's intent.

The information campaign was composed of two elements: input and output. The output element was designed to establish IFOR's credibility with the international media in order to gain support of operations, while a psychological operations (PSYOP) campaign was designed to shape the local population's perception in favor of IFOR troops and activities. This two-pronged approach to disseminate information allowed Public Affairs to deal with journalists, while PSYOP carried the message to the local population through IFOR-owned media: a TV production section, six organic and 56 affiliated radio stations, a national weekly newspaper, *The Herald of Peace*, a youth magazine *Mircko*, posters, and handbills.<sup>100</sup> The input element came from a variety of traditional means, including units conducting patrols, intelligence, surveillance, and reconnaissance (ISR) assets, as well as reports from various staff elements (high); however, two input mechanisms proved of particular value in providing input to the IO cell. First, the Joint Military Commission (JMC) was an established meeting with two or

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<sup>99</sup> Dennis Steele, “The Human Touch: Civil Affairs in Bosnia.” Army. FindArticles.com. 30 Oct. 2008. [http://findarticles.com/p/articles/mi\\_qa3723/is\\_199704/ai\\_n8767189](http://findarticles.com/p/articles/mi_qa3723/is_199704/ai_n8767189) (accessed November 12, 2008).

<sup>100</sup> Layton L. Wentz, R. L., Landon, J. J., Bair, A., Dziedzic, M. J., Combelles-Siegel, P., et al. (1998). In Wentz L. (Ed.), *Lessons from Bosnia: The IFOR experience*. Washington D.C.: NATIONAL DEFENSE UNIV WASHINGTON DC INST FOR NATIONAL STRATEGIC STUDIES. Retrieved from <http://handle.dtic.mil/100.2/ADA461623> (accessed May 2008)

more FWF military representatives (usually commanders). At such meetings, the FWFs met under IFOR supervision to coordinate joint activities, disseminate intent and instructions, and to resolve differences.<sup>101</sup> As illustrated in Figure 4 Task Force Eagle JMC Operations, the JMC produced a tremendous amount of information that fed into the IO cell to determine success, shortfalls, and direction needed for the information campaign.

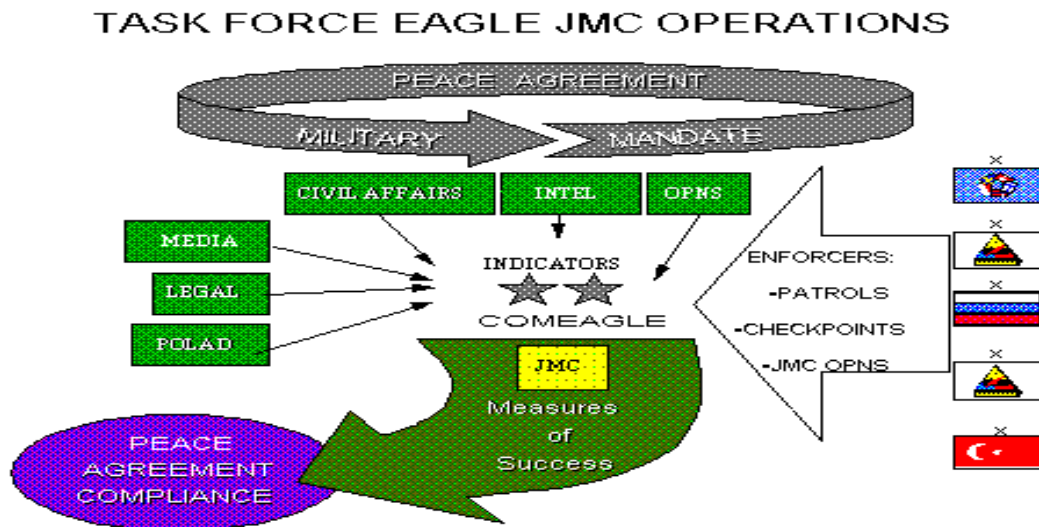


Figure 4. Task Force Eagle JMC Operations

The second input mechanism was the Joint Commission Observer teams (JCO) comprised of U.S. Special Forces. Living among the population, JCO teams conducted business in a lower profile in an effort to present a less threatening image to the people in their sectors. With key tasks of “direct liaison, communications, and information exchange with the former warfighting faction (FWF) forces,” JCO teams identified contacted and maintained open dialogue with key players and power brokers in the communities in which they lived and operated.<sup>102</sup> This provided commanders with

<sup>101</sup> John Pike, “Section II. Policy: JOINT MILITARY COMMISSIONS.” GlobalSecurity.Org. [http://www.globalsecurity.org/military/library/report/call/call\\_96-8\\_sec2.htm](http://www.globalsecurity.org/military/library/report/call/call_96-8_sec2.htm) (accessed October 13, 2008).

<sup>102</sup> Michael L. Findlay. *Special Forces Integration with Multinational Division-North in Bosnia Herzegovina*, A Monograph, School of Advanced Military Studies, United States Army Command and General Staff College, Fort Leavenworth, Kansas, May 21, 1998.



unique capabilities which conventional units were not organized or trained to provide. First, they offered accurate assessments of the sentiments of the population through daily interaction with the people in their sector. Second, they provided a conduit to key personnel in the event of an emergency or crisis. Last, they provided ground truth and accurate reporting of critical events from the local population's perspective.

JCO teams organized into functional areas to focus on specific warring factions and critical areas within the community. One team (political) worked on communications with the local Bosnian mayors, members of parliament, political party leaders and international or regional organizations such as the Organization for Security and Cooperation in Europe. Another team (military) worked to know military leaders within the sector, the locations of units and their strengths, their weaknesses, and their concerns. A third team focused on judicial and law enforcement working with the local and national police, members of the judicial system, and the courts within the sector. Working in functional teams allowed the JCO to accurately read the sentiment of the population and notify their higher headquarters of impending problems or unrest before they occurred.

Like many organizations today, the U.S. military entering Bosnia was a bureaucracy, where authority and responsibility fall under a hierarchy. Following the traditional military structure, military activities and task were organized within sub-units (division, brigade, battalion, company) performing functions at the three levels of warfare (strategic, operational, tactical). Units completing complex tasks in Bosnia quickly realized the importance of both vertical and horizontal integration of IO when the traditional hierarchical structure operated as functional, divisional, and matrix organizations. This constituted a tough challenge in quickly reporting information due to time-consuming reporting requirements in a traditional chain of command, where each level of authority requires processing information before passing it up. This required organizations to act in a functional manner rather than the traditional divisional structure.

During the campaign, an unprecedented amount of information flowed from Washington to European headquarters, to intermediate staging bases, and to the front line troops in Bosnia and back. Clusters of networks connected NATO headquarters with the

Implementation Force (IFOR) in Bosnia, while another set connected units inside the Bosnia Theater of Operation. U.S. forces in Bosnia realized that targeting information extended beyond the battlefield and involved more than attacking an adversary's information flow and systems. It also requires awareness and sensitivity to information received through nonmilitary means. This realization, along with the speed and frequency of data transmitted, caused a significant change in the way U.S. forces conducted military operations and warfare.

The communication infrastructure was very robust with military and commercial communication networks set up from the U.S. to the soldier on the ground. Limited by large amounts of damage to commercial communications infrastructure and interference by FWF, the U.S. was prevented from developing the commercial communications capability to support military operations.<sup>103</sup> For support, military tactical satellite assets deployed to ensure that dual and triple connectivity could be established, with gaps in coverage filled by leased commercial satellite vendors. This planning ensured that tactical and commercial networks provided a reliable long haul and regional CIS network.

Internally, U.S. brigades and battalions connected to the headquarters and each other through several automation systems. The Maneuver Control System (MCS) provided secure means of transmitting orders, maps, diagrams, and classified e-mail. WARLORD, an intelligence terminal, handled most intelligence products, including imagery logistical and administrative systems, which were in place to handle a multitude of information. This vast network created a patchwork-operating environment rather than an efficient system of systems. However, the network did allow for the timely transmission of data, such as unit patrol reports and JCO assessments, to the functional information chain, which linked public information officers throughout theater.

From the informational dimension, the IOWG played a critical role because IO was Task Force Eagle's primary means of influencing popular support of the Dayton Accords. Planning, coordinating, and synchronizing efforts allowed the division to speak

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<sup>103</sup> All three factions damaged commercial communications facilities during the course of the conflict.

in one voice, leverage the truth, and use multiple messages through multiple channels to achieve desired objectives. For example, if a stated objective was to “Mitigate ethnic tensions related to the return of displaced persons in town x,” then radio shows would be used to inform the populace that increased financial investment by the international community was tied to their maintaining a safe and secure environment. Newspaper ads could promote ethnic tolerance and warn the population that MND (N) and SFOR would not tolerate obstruction of the return. U.S. military leaders would conduct Bilats<sup>104</sup> to influence or co-opt local leadership to encourage acceptance and maintain law and order reducing ethnic tension.<sup>105</sup>

On occasion, the physical dimension bled into the information and cognitive dimensions as on September 1, 1997, when TFE forces seized a Bosnian-Serb run radio tower to halt the broadcasting of anti-IFOR propaganda.<sup>106</sup> The seizure halted the broadcast, removed an asset from Bosnian Serb leaders, and had a psychological affect on station operators and Serbian leadership. The station was returned after Republika Srpska leaders promised to refrain from spreading inflammatory propaganda.<sup>107</sup> Public Affairs supported these efforts and worked in parallel with the PSYOP efforts to convince the former warring factions and the population to refrain from further fighting amongst themselves or from attacking coalition forces.

A critical requirement was the feedback from the information environment. Measures of effectiveness consisted of the receipt of information content through public opinion polls, surveys, media analysis, human intelligence (HUMINT), tactical PSYOP teams, and patrols that provided important information concerning perceptions, attitudes, and behaviors of the FWF and the population. Additional measures of performance related to the flow of information and assessed the short-term effects. The combination

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<sup>104</sup> BiLats were meetings conducted with the former warring factions that were chaired by a U.S. military leader.

<sup>105</sup> Timothy LaBahn, “Information Operations in Bosnia.” *Field Artillery Journal*, Nov-Dec 2001.

<sup>106</sup> SFOR Public Affairs. “Task Force Eagle-Multinational Division- North (Eagle base) in Bosnia.” [http://www.tfeagle.army.mil/TFE/SFOR\\_History.htm](http://www.tfeagle.army.mil/TFE/SFOR_History.htm) (accessed November 3, 2008).

<sup>107</sup> Maj. Arthur N. Tulak, “The Application of Information Operations Doctrine in Support of Peace Operations,” CGSC MMAS Thesis, (Fort Leavenworth, KS: U.S.ACGSC, 1999): 89.

of the two determined whether the themes and messages were delivered to the target, whether or not the target received them, and whether the dispersion of the themes and messages were achieved in the engagement. The true effectiveness of IO engagements and campaigns were determined over time based on the actions of targets and perceptible changes in the environment. Continuous assessment provided the basis for adjusting future informational activities.

From the cognitive dimension, the U.S. military employed a multipronged approach designed to deter the FWF from violating the Dayton Peace Accords and attacking NATO troops, as well as convincing the population that full compliance with the Dayton Peace Accords meant a brighter future. To accomplish this campaign, U.S. forces relied on the coordination and synchronization of public information and psychological operations.

Though public information and PSYOP were historically separated, the mission of peace-enforcement made it possible to link public affairs and psychological operations (HIGH).<sup>108</sup> The design of the information campaign allowed public affairs to focus on the external media and journalist, while PSYOP focused on the local population without the mediation of journalists. PAO and PSYOP worked openly and transparently, relying on similar guidance, themes, and messages to reach their specific audience. They utilized IFOR-owned media that included a TV production section, 6 organic and 56 affiliated radio stations, a national weekly newspaper (*The Herald of Peace*), a youth magazine (*Mircko*), posters, and handbills.

As part of an operational campaign, the entertainment format of the U.S. owned radio station focused on children, teenagers, and young adults while the vast majority of messages (mostly in English and not Serbo-Croatian) were targeted at an older

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<sup>108</sup> Traditionally PAO and PSYOP are separated due to their different missions and philosophies. Psychological operations are designed to shape target audiences' perceptions so that they create the least possible interference with friendly forces. Public Affairs have a dual function, first gain and maintain public opinion support for the operation; it is also used as a 'public diplomacy' tool designed to pressure adversaries into a friendly course of action. Second, public affairs are the means by which a commander reports to the people how their children and tax dollars are used. This entails some obligations such as truthful and timely reporting.

population.<sup>109</sup> Coupled with the ability of the Tactical PSYOP Teams to just talk with or “hang out” with locals at coffee shops, restaurants, or in private homes allowed the soldiers to cut through the red tape and speak to the people in real terms. These face-to-face engagements allowed immediate access to population sentiment based on impact statements discussed with the target audience thus allowing U.S soldiers to accomplish more in a shorter amount of time. Armed with talking points, the TPTs were able to provide the “party line” to the locals on sensitive issues.

## **1. Summary**

Over the course of ground force intervention in Bosnia by the United States from December 1996 to December 2004, the U.S. military learned a number of valuable lessons about the integration of information operations and associated elements. It is easy to see the complex environment in which the U.S. Forces worked. The four factors of no single authority to synchronize political, military, and humanitarian actions, no IO doctrine, various warring factions with varying support levels and a mature operating environment all support a complex environment. However, the integration of IO into combat operations is not because of the complexity and instability of the environment. Rather the command atmosphere, rules of engagement, and the need to use non-traditional means to influence, inform, and co-opt drove the integration of IO.

Facing a hostile information environment, where the FWF had mature propaganda and disinformation campaigns already in full swing, the U.S. adapted to the elements within the Bosnia operational environment. Adversity forced by constrictive measures spurred commanders to integrate IO into operations. In order to garner support, Task Force Eagle organized the battle staff to integrate IO into overall operations. First with the fire support element and later with a field support team (FST) from the Land Information Warfare Agency (LIWA) whom assisted to reduce the uncertainty of conducting IO in Bosnia. The organic structure of the FSE allowed the integration of IO

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<sup>109</sup> Layton L. Wentz, R. L. Landon, J. J. Bair, A. Dziedzic, M. J., Combelles-Siegel, P., et al. (1998). In Wentz L. (Ed.), *Lessons from Bosnia: The IFOR experience*. Washington D.C.: NATIONAL DEFENSE UNIV WASHINGTON DC INST FOR NATIONAL STRATEGIC STUDIES. <http://handle.dtic.mil/100.2/ADA461623> (accessed June 20, 2008).

cells at the IFOR headquarters, the TFE headquarters, and down to the battalion headquarters level, which ensured the vertical integration using the organic structure.

The deployment and wide availability of computers and networks provided the U.S. military the ability to collaborate with a speed and efficiency never before experienced in the military. Often, media reports of incidents would reach the home country and or higher headquarters before the commander on the ground was aware of the situation and able to react.<sup>110</sup> This near-real-time situational awareness allowed the staff elements to quickly analyze during crisis and correct the overall information campaign in an accurate manner. The constant flow of information through the various channels to and from the population ensured that information operations became vital for the commander as “information” and the fight for it became a daily occurrence.

Civil affairs soldiers worked closely with civilian agencies (NGOs, PVOs, and IOs) that developed a network of influential contacts, compiled historical and specialty archives, and established relationships with local leaders and business people. This allowed U.S. commanders to understand the infrastructure of the region, as well as the political and economic influences. This working relationship with civilian agencies and centers of operation were both passive intelligence sources and consumers of intelligence information.

Whether by coincidence or design, the reality of networks both social and computer played a considerable role in Bosnia. Both enabled information to be sent and received from the population and former warring factions. Both had redundant channels of communication and enabled IO to complete tasks and objectives of the command. Last, the ability of these networks to develop as needed was crucial to mission accomplishment, as in the case of the public information network that streamlines information flow.

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<sup>110</sup> Layton L Wentz, R. L. Landon, J. J. Bair, A. Dziedzic, M. J., Combelles-Siegel, P., et al. (1998). In Wentz L. (Ed.), *Lessons from Bosnia: The IFOR experience*. Washington D.C.: NATIONAL DEFENSE UNIV WASHINGTON DC INST FOR NATIONAL STRATEGIC STUDIES. <http://handle.dtic.mil/100.2/ADA461623> (accessed June 20, 2008).

Overall, the Bosnian conflict displayed the value of integrating information operations into combat operations. The two theories (organizational & informational) in this conflict are complementary to each other and of equal explanatory power, rather than one being better than the other is. Organizational theories provide the backbone while the information theories are the meat of the military unit. Ultimately, the proper integration of IO requires a collaboration of theories to defeat our adversaries.

### **C. OPERATION ENDURING FREEDOM (AFGHANISTAN)**

On October 7, 2001, the United States and its allies initiated Operation Enduring Freedom in Afghanistan with the stated goal of disrupting the use of Afghanistan as a terrorist base of operation. The initial attacks on the Taliban and Al Qaeda training camps and infrastructure were a response to the September 11, 2001, attack on the Pentagon and World Trade Center. With the nation standing behind the president, the U.S. sought to topple the regime supporting Al Qaeda and take revenge on the terrorist network.

The country of Afghanistan presented a difficult operational environment for U.S. and coalition forces. During the seven-years, the Taliban controlled the information environment and imposed a strict version of Sharia law that banned a wide variety of activities to include: employment and education for women, movies, television, videos, music, dancing, hanging pictures in homes, and clapping during sports events. To enforce these rules, the Ministry for the Promotion of Virtue and Suppression of Vice (PVSV) used “religious police” to ensure the population complied. Religious police often beat offenders — typically men who shaved and women who were not wearing their burqa properly — with long sticks.<sup>111</sup> Information passed from the ruling Taliban regime to the population internally, while externally, information to and from Afghanistan was limited due to Taliban restrictions. This restricted environment was amplified by the physical shortfalls of the country’s infrastructure.

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<sup>111</sup> Ahmed Rashid, “Taliban: Islam, Oil and the New Great Game in Central Asia.” London, U.K. I.B.Tauris, 2002.

From a physical dimension, the country was geographically constrained by the landlocked, mountainous topography. Complicating matters further, the long war with the Soviet Union and disregard by the Taliban resulted in no modern infrastructure existing within the country. Roads, airfields, and scarce public services were still largely in a state of disrepair from the Soviet occupation of the 1980s and presented a logistical nightmare to planners considering large-scale conventional troop movements. With the difficult operational environment in planners' minds, the national command authority made the decision to inset special operations forces into the country to provide coordination with the Northern Alliance and other local Afghan militias opposed to the Taliban regime in addition to working closely with CIA teams to influence neutral Afghan warlords to join the fight.<sup>112</sup>

The U.S. and coalition forces entering Afghanistan faced the complex task of cobbling together support from the patchwork of tribes in the northern part of the country. The complexity of working with multiple countries for support, as well as numerous ethnic militias' of the United Islamic Front (UIF) for the Salvation of Afghanistan (otherwise known as the Northern Alliance by the west) proved a complex task. To highlight the difficulty, one need only look at the Northern Alliance to see the complexity. Within the Northern Alliance, five groups make up the alliance where three main ethnic groups dominated the UIF. The three groups were the Tajiks, who make up 27% of Afghanistan's population and are the second largest ethnic group, the Hazara, and the Uzbeks who each make up about 9% of the population.<sup>113</sup> Each of these groups followed a tribal leader who agreed on some level to support the Northern Alliance to combat the Taliban and its rule of Afghanistan. While the relationship with the Northern Alliance was complex, the cooperation functioned well during the defeat of a common enemy in the Taliban and Al Qaeda.

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<sup>112</sup> "Operation Enduring Freedom – Afghanistan." Global Security Website, [database on-line]; available from <http://www.globalsecurity.org/military/ops/enduring-freedom.htm>; Internet; (accessed October 20, 2008).

<sup>113</sup> Fiona Symon, "Afghanistan's Northern Alliance." BBC World News. [http://news.bbc.co.uk/1/hi/world/south\\_asia/1552994.stm](http://news.bbc.co.uk/1/hi/world/south_asia/1552994.stm) (accessed November 4, 2008).



To support the ground force, strike airframes like the F/A-18, focused on the area in and around the cities of Kabul, Jalalabad, and Kandahar to destroy key targets while the use of EC-130H Compass Call and the EA-6B Prowler disrupted the communications and air defense networks of the Taliban and Al Qaeda. Several weeks into the campaign, the focus shifted when the Northern Alliance insisted the air campaign focus more on close air support for the front line troops. In coordination with these efforts, CENTCOM used the Joint Psychological Operations Task Force (JPOTF) to influence the Afghan populace using broadcast messages on Afghan radio and television frequencies along with posters, leaflets, and handbills given to the Afghans providing them information.

Adding to the complexity was the fact that no conventional war plan existed to fight in Afghanistan, nor did the U.S. maintain basing arrangements with any neighboring countries from which ground forces could rapidly enter Afghanistan.<sup>114</sup> The choice to send a smaller, highly trained and flexible Special Operations force simplified command and control as the chain of command went from U.S Central Command (CENTCOM) directly to the special operations soldiers operating in Afghanistan. Driving the operations environment into a stable-complex dimension, CENTCOM established three Combined/Joint Special Operations Task Forces (C/JSOTFs) to operate in Afghanistan. C/JSOTF-North, codenamed Task Force Dagger, formed around the 5<sup>th</sup> Special Forces Group (Airborne) to conduct initial operations against Al Qaeda and the Taliban.<sup>115</sup> Combined/Joint Special Operations Task Force-South (C/JSOTF-South), codenamed Task Force K-Bar and originally consisted of a U.S. Navy SEAL element and the Special Operations Forces (SOF) of other coalition nations, arrived in Afghanistan in late November 2001, and augmented in December by one company from the 1<sup>st</sup> Battalion, 5<sup>th</sup> SFG (A).<sup>116</sup> The final C/JSOTF, codenamed Task Force Sword, conducted operations that remain classified.

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<sup>114</sup> Tommy R. Franks, *American Soldier*, Regan Books (New York: 2004), p. 251.

<sup>115</sup> "PBS Frontline: Campaign Against Terror: Interview: Colonel John Mulholland," PBS, 1. Available [Online] : <<http://www.pbs.org/wgbh/pages/frontline/shows/campaign/interviews/mulholland.html> (July 28, 2004).

<sup>116</sup> Robin Moore, *The Hunt for Bin Laden: Task Force Dagger-On the Ground with Special Forces in Afghanistan*, Random House (New York: 2003), 267.

The U.S. military quickly accomplished many military tasks, taking just 70 days from the start of hostilities to defeat Al Qaeda in Afghanistan and remove the Taliban from power. On the ground, U.S. and Coalition Special Forces (SF) teams provided targeting information to coalition attack aircraft. This proved highly successful, as Afghan tribes working with the U.S. were able to capture city after city from the weakened Taliban. After the joint Northern Alliance/U.S. military force seized Kandahar in December, many of the Taliban fled to join the remnants of the Taliban and Al Qaeda coalition continue to mount resistance in southern areas of Afghanistan.

The U.S. military deployed with an extensive tactical network consisting of satellite terminals, telephone switchboards, and data network operation equipment enabling the capability to conduct operations within Afghanistan. This network allowed U.S. forces to augment and synchronize Northern Alliance communication with organic, tactical communication systems of the U.S. Special Forces linking them to coalition airpower networks. As the operations matured, communication sites were set up at CFLCC Forward in Uzbekistan, with the U.S. Army's 10th Mountain Division in Bagram, Afghanistan and with Task Force Rakkasan (3rd Brigade Combat Team, 101st Airborne Division) in Kandahar, Afghanistan.<sup>117</sup> These hubs provided command, control, communications, computers, and Internet (C4I) services both internally to forces in Afghanistan and externally to U.S. and coalition forces nations. As the number of U.S. personnel increased in late 2001, the military expanded the network procuring 183 tons of network and communications equipment in less than 30 days and coordinated the delivery to Bagram air base in Afghanistan.<sup>118</sup> Upon completion, the site provided numerous satellite links and circuits to provide voice, data, and video teleconferencing services in “a state of the art communications site-the most modern communications facility in the entire country.”<sup>119</sup>

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<sup>117</sup> Carol Conner, “Signal Command Provides Commercial Communications in Afghanistan.” Army. FindArticles.com. November 5, 2008.  
[http://findarticles.com/p/articles/mi\\_qa3723/is\\_200304/ai\\_n9189343](http://findarticles.com/p/articles/mi_qa3723/is_200304/ai_n9189343) (accessed August 10, 2008).

<sup>118</sup> Carol Conner, “Signal Command Provides Commercial Communications in Afghanistan.” Army. FindArticles.com. November 5, 2008.  
[http://findarticles.com/p/articles/mi\\_qa3723/is\\_200304/ai\\_n9189343](http://findarticles.com/p/articles/mi_qa3723/is_200304/ai_n9189343) (accessed August 10, 2008).

<sup>119</sup> Ibid.

Perhaps the most useful tools in operation have been the tactical satellite radios that reliably connect forces regardless of the terrain or space that separates them and the U.S. Army's Global Positioning System, Blue Force Tracker. The Blue Force Tracker allows both headquarters and tactical units a common operational picture, as well as acts as a communication system to pass information. The ability of tactical units to communicate with sister units as well as with higher headquarters promoted the transmission of information both vertically and horizontally. This is highlighted in the ability of the operation to be controlled from Tampa, Florida, with real-time connectivity to air, ground, naval, and Special Operations Forces operating 7000 miles away. CENTCOM forces were deployed from 267 bases; operated from 30 locations in 15 nations; and over-flew 46 nations in the course of operations. Yet, the ability to "see" the battlefield literally and figuratively at each location provided unprecedented situational awareness.<sup>120</sup>

With this awareness, the synchronization of effects came from the Joint Effect Coordination Board (JECB) in the early parts of OEF, and later through the IOWG as the theater matured. The JECB was a targeting board that approved and synchronized the targets while managing and allocating resources to achieve targeted effects throughout the operations area.<sup>121</sup> The synchronization of information supported the actions on the ground of various U.S. forces operating in Afghanistan. The flow of information was continuous as U.S. forces sought to leverage the truth and use multiple messages through multiple channels to achieve desired effects.

An example of this synchronization was the raid conducted by U.S. Army Rangers on October 19, 2001, on a landing strip southwest of Kandahar. Striking into the home of the Taliban spiritual leader, Mullah Omar, the raid served as a warning that America could strike when and where it chose, even at the center of the Taliban spiritual

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<sup>120</sup> "Operation Enduring Freedom – Afghanistan." Global Security Website, [database on-line]; available from <http://www.globalsecurity.org/military/ops/enduring-freedom.htm>; Internet; accessed October 27, 2008.

<sup>121</sup> Major Robert B. Herndon, Chief Warrant Officer Three John A. Robinson, Colonel James L. Creighton, Lieutenant Colonel Raphael Torres and Major Louis J. Bello. "Effects Based Operations in Afghanistan." *Field Artillery Magazine*. [http://findarticles.com/p/articles/mi\\_m0IAU/is\\_1\\_9/ai\\_n6358308](http://findarticles.com/p/articles/mi_m0IAU/is_1_9/ai_n6358308) (accessed November 4, 2008).

strength. While the raids were to gather intelligence for the possible use of the airstrip, the killing of 25 enemy troops and the calling cards left by the rangers had a psychological effect on the local population.<sup>122</sup> Around the world, news agencies reported the successful raid, which had a psychological impact on the U.S. and foreign population.

Pushed to the mountain stronghold of Tora Bora, the remnants of the Al Qaeda network fought against an anti-Taliban militia backed by U.S. and U.K. Special Forces who had made steady gains across the mountainous terrain. The U.S., seeking to end the conflict, pushed to strike a final blow to the Taliban and Al Qaeda by capturing Osama Bin Laden who was believed to be in the area. Facing an imminent defeat, the terrorist negotiated a truce with the local tribal commander. During this truce, Bin Laden and other leaders relocated in preparation to escape when the fighting renewed several days later. Although several hundred fighters were killed during the engagements, Bin Laden escaped and the Al Qaeda network survived. Subsequent to the battle of Tora Bora, the coalitions wanted to transition power to the Afghan factions. The calling of a grand council (Loya Jirga) of Afghan factions, tribal leaders, and exiles convened in Kabul to establish the new interim Afghan government.

With the swearing in of Hamid Karzai as the interim president of Afghanistan, the U.S. sealed the fate of the transition from the Taliban to a democratic Afghanistan. The military priority of effort in Afghanistan shifted from SOF to conventional operations in December 2001, when the effort shifted from defeating the Taliban to helping establish a viable, long-term government in Afghanistan. The Combined Joint Task Force (CJTF)-180, built around the 10<sup>th</sup> Mountain Division, would form in June 2002, with the Combined Forces Command–Afghanistan (CFC-A) assuming responsibility from the Combined Force Land Component Command (known as Third Army) forward

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<sup>122</sup> The psychological effect was that the U.S. could conduct operations anywhere against the Taliban network with impunity. This led to the doubt in the ability of the Taliban and its military.

headquarters for operations in Afghanistan.<sup>123</sup> The CFC-A focused on countrywide issues to include coordination with the UN Mandated International Security Assistance Force (ISAF). A separate force, CJTF-76, would focus on day-to-day operations for most of Southern Afghanistan outside of Kabul.

Meanwhile, the Taliban and Al Qaeda had not relinquished the idea of controlling Afghanistan. Instead, forces regrouped in the Shahi-Kot Mountains in Afghanistan with the intention of using the area as a base of operations to renew hostilities against the coalition and the newly founded government. Using tactics learned battling the Soviets in the 1980's, the mujahedeen style fighters gained strength totaling over 1,000 by early 2002. The coalition, believing that several key leaders were present in the valley, launched the kinetically focused Operation Anaconda in early March 2002, with the intent of removing the estimated 200 insurgents from the region and capturing the key leaders of Al Qaeda and the Taliban.<sup>124</sup> Between March 2 and March 16, 2002, over 2,500 U.S. and pro-government Afghan militia battled an estimated 1,000 Al Qaeda and Taliban fighters for control of the valley. The result was the death of approximately 800-1,000 insurgents and the joint Coalition-Afghan force gaining control of the valley.

The downfall of the operations was that Taliban and Al Qaeda key leadership once again escaped into the border area of Pakistan, where it had established sanctuaries among tribal protectors in the Federally Administered Tribal Area (FATA). This was crucial as 5 to 25 man guerrilla units regularly cross the border to conduct attacks. Using hit and run tactics, the guerillas fire rockets at U.S. bases, ambush American and Afghan military convoys and patrols, Afghan government facilities, personnel, and non-governmental organizations providing humanitarian relief.<sup>125</sup> Since being driven from the country in late 2001 and early 2002, the Taliban with its Al Qaeda backers continue

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<sup>123</sup> Major Robert B. Herndon, Chief Warrant Officer Three John A. Robinson, Colonel James L. Creighton, Lieutenant Colonel Raphael Torres and Major Louis J. Bello. "Effects Based Operations in Afghanistan." Field Artillery Magazine. [http://findarticles.com/p/articles/mi\\_m0IAU/is\\_1\\_9/ai\\_n6358308](http://findarticles.com/p/articles/mi_m0IAU/is_1_9/ai_n6358308) (accessed November 4, 2008).

<sup>124</sup> These HVTs were believed to be Osama bin Laden, Ayman al-Zawahiri, and Mullah Omar, the leaders of Al-Qaeda and the Taliban, respectively

<sup>125</sup> Barbara Star, "CNN.Com - U.S. Remains on Trail of Bin Laden, Taliban Leader - March 14, 2002." Cable News Network (CNN). <http://archives.cnn.com/2002/US/03/14/ret.osama.whereabouts/index.html> (accessed November 10, 2008).

to confront coalition and Afghan forces to this day. Utilizing the safe havens established in the FATA region, the insurgents have managed to reorganize and recruit new fighters to conduct offensive operations with relatively little cross border response by coalition and Afghan forces.

Since late 2001, the kinetically focused U.S. forces have applied lessons learned from earlier conflicts and began attacking perceptions in place since the Taliban regime came to power. With a campaign of division and surrender, U.S. forces have worked to remove public support for the Taliban and convince insurgents to lay down their arms and join the coming tide of democratic change. Utilizing multiple channels that included the EC-130J commando solo and SOMS-B radios to broadcast messages on radio and television along with posters, leaflets, and handbills, the information has flowed to Afghans.<sup>126</sup> This effort to shore up the Afghan government was supported by using humanitarian assistance and civil military reconstruction projects to garner support of the population throughout the country.

Additionally, CA soldiers provided humanitarian assistance and used coalition talking points to conduct face-to-face engagements with the local population. During the initial campaign, soldiers supported humanitarian missions, gave 50,000 blankets and 10,000 single-family tents to flood and wintertime victims, medically treated 28,000 people, visited more than 200 villages, and inoculated 40,000 animals for disease. As the interim government stepped into place, CA soldiers assisted in the restoration of farmers markets, schools, and most importantly, a viable police force.<sup>127</sup> The CA teams made the Afghan national police training a critical aspect of their association so that the people of Afghanistan could look upon their police as a viable, just authority capable of providing security.

While improvements have been made in numerous provinces, these efforts have had limited success as the weak Afghan government is viewed as unable to provide

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<sup>126</sup> Herbert Friedman. "Afghanistan PSYOP Leaflet." <http://www.psywarrior.com/Herbafghan.html> (accessed November 5, 2008).

<sup>127</sup> Tara Teel, SGT, "Brigade Reflects on Afghanistan Deployment - Defend America News Article." U.S. Department of Defense News. <http://www.defendamerica.mil/articles/jul2005/a071205wm1.html> (accessed November 5, 2008).

support outside of the capital region. This view has provided the Taliban an opportunity to flow into southern Afghanistan, as seen by the numerous attacks in southern provinces from 2003 until present day. To help counter this surge the U.S. established Provincial Reconstruction Teams (a shift from the kinetic focus) to aid the reconstruction effort. In January 2006, with the arrival of NATO troops, the focus in southern Afghanistan was to form Provincial Reconstruction Teams with the British leading in Helmand Province and the Netherlands and Canada both leading similar teams in Orūzgān Province and Kandahar Province respectively. Local Taliban figures voiced opposition to the incoming forces and pledged to resist it.<sup>128</sup> Today, the U.S. military forces remain kinetically focused on defeating the combined Taliban and Al Qaeda insurgency with information operations and non-kinetic operation disjointed in the overall plan attack in Afghanistan.

## **1. Summary**

Operation Enduring Freedom, like most conflicts consists of a complex environment that produced numerous uncertainties for the U.S. and coalition forces. These uncertainties ranged from the support, willingness, and capability of the ethnic militias of the Northern Alliance to the will of the population to rid itself of the Taliban regime. Special Forces, working with loosely affiliated tribes, found themselves as the only conduit between the Northern Alliance, often with Special Forces team members being the glue between two groups. There is evidence to support OEF-P as a complex and unstable environment, along with evidence to support the fact that IO was integrated in the complex Afghan environment. Elements of IO can be seen from the initial battles to today's conflict and remain a primary element in the fight for the country. However, the complexity of the conflict does not strongly support that the integration or employment of IO was due to the complex nature of the conflict. It was a factor for the integration but not the primary reason.

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<sup>128</sup> “BBC NEWS | South Asia | Taleban Vow to Defeat UK Troops.” BBC News, [http://news.bbc.co.uk/2/hi/south\\_asia/5057154.stm](http://news.bbc.co.uk/2/hi/south_asia/5057154.stm) (accessed November 20, 2008).

Operation Enduring Freedom started as an economy of force conflict with Special Forces soldiers augmenting local anti-Taliban forces covered by the lethality of U.S. airpower. The precision targeting of Taliban and Al Qaeda forces allowed the Northern Alliance to sweep through the country, reclaim city after city, and push the Taliban and Al Qaeda into Pakistan. While the opportunity to integrate IO existed for the highly trained Special Forces, the U.S. commanders' focus on kinetic requirements often outweighed the desire to conduct non-kinetic operations. This is not to say that IO was not conducted (tactical PSYOP, information engagement, and civil military operations), just that the integration of these items was not synchronized and coordinated in a manner to achieve overall objectives.

During OEF, the country's physical constraints on the operational environment complicated matters along with limited or no modern infrastructure existing within the country. This adversity drove the communication personnel to solve difficult networking solutions. Units working in the country realized that the years of neglect and war required the use of many non-lethal means to gain the confidence of the population. This is evident through the example of the CA teams who worked on humanitarian missions giving blankets, tents, medical aid, and veterinary services to inoculate animals for disease.<sup>129</sup> This integration came as a direct result of the adversity faced in the conflict.

U.S. forces operating in Afghanistan faced a closed information environment controlled by the Taliban and Al Qaeda. The deployment of tactical networks consisting of satellite terminals, telephone switchboards, and data network operation equipment which enabled situational awareness from troops on the ground to CENTCOM headquarters in Tampa, Florida, with real-time connectivity to a force operating thousands of miles away. The phased building of the tactical network from Uzbekistan, to Bagram, to Kandahar, culminated with the development of a state of the art

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<sup>129</sup> "Operation Enduring Freedom – Afghanistan." Global Security Website, [database on-line]; available from <http://www.globalsecurity.org/military/ops/enduring-freedom.htm> (accessed October 27, 2008).



communications facility in the country.<sup>130</sup> The vast network provided C4I services, both internally and externally, allowed coalition soldiers the ability to communicate with sister units as well as with higher headquarters, and promoted the transmission of information both vertically and horizontally.

The ability to collaborate and share information fostered the synchronization of IO from the strategic to the tactical level; however, the full capability of IO was underutilized due to the limited number of assets and the tendency to use kinetic force instead. The ability to share information both visually and digitally through Blue Force Tracker did enable units to operate in a decentralized manner. This allowed the integration of the elements of IO with combat forces to freely collaborate and execute in crisis response mode when primary communication were tied up with maneuver units coordinating actions. This network within a network allowed headquarters IO action officers to pull information, analyze it without querying the unit in contact, and push assets and information back to the unit on the ground.<sup>131</sup>

Lessons learned during the conflict spurred the development of a new Army IO doctrine to aid in the employment of information operations personnel, tactics, techniques and procedures.<sup>132</sup> These lesson were learned by U.S. forces who relied heavily on the network formations (both human and computer) to act as the conduit of information. Human networks provided intelligence on the anti-Afghan forces and acted as a means/mode to pass information from U.S. and coalition soldiers to the population. Computer networks ensured the dissemination of information gathered among the coalition partners and to higher headquarters outside the theater of operations. As the operation matured, an additional lesson learned was the synchronization of IO and who coordinated the effects. Early in the conflict, a small cell of personnel worked to support the kinetic operations conducted by the Northern Alliance and supported by SOF teams.

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<sup>130</sup> Carol Conner, "Signal Command Provides Commercial Communications in Afghanistan." Army. FindArticles.com. November 5, 2008.  
[http://findarticles.com/p/articles/mi\\_qa3723/is\\_200304/ai\\_n9189343](http://findarticles.com/p/articles/mi_qa3723/is_200304/ai_n9189343) (accessed August 10, 2008).

<sup>131</sup> PSYOP, Civil Affairs, SOF teams, and PRTs can be considered internal networks within a network although when on patrol, the units worked within the SOPs of the maneuver unit.

<sup>132</sup> FM 3-13 was published in 2003 after OEF had been underway for numerous months.

As the mission changed, the need for a more robust IO staff element became clear not only by the commanders on the ground but also by the Army itself as it moved to the modular force structure. The move to a modular army recognized the increased importance of IO and developed the IOWG into a fully capable cell with habitual elements of IO working within the construct.<sup>133</sup>

Overall, the Afghan theater of operations has displayed that the integration of information operations into combat operations remains at a low level. Over the past several years, strides have been made to improve the integration in the Afghan theater with the PRT's as well as with the introduction of new Brigade Combat Teams and their new structure, as well as improved strategic and operational IO cells. These organization changes, along with the kinetically focused command environment, tip the scale in favor of the organizational frame of reference. It is important to note that during this conflict, the informational frame of reference has played an ever-increasing role in the defeat of the Taliban/Al Qaeda. The collaborative efforts of the U.S. military to work in concert with coalition partners (NATO/ISAF/ANF) has highlighted the ability of different networks to focus on the adversary by sharing information through technology. Adjustments in the command structure now allow a synchronized IO campaign against the Taliban.

#### **D. OPERATION ENDURING FREEDOM (PHILIPPINES)**

In December 2001, the global war on terrorism expanded to include the Philippines. OEF (P) arose in response to the kidnappings of U.S. citizens by the Abu Sayyef Group (ASG), a radical Muslim organization backed by Al Qaeda. Members of Special Operations Command, Pacific (SOCPAC), headed by Brig. Gen. Donny Wurster, deployed as Joint Task Force 510 (JTF 510) to support Operation ENDURING FREEDOM – Philippines in January 2002, to assist the Philippine Armed Forces (AFP) to target this group.<sup>134</sup>

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<sup>133</sup> The IO components of US Army brigade combat teams consist of a public affairs officer, Psyop soldier, civil affairs officer/soldier, computer network operations officer (FA53), and an information operations officer. The brigade is capable offensive and defensive operations in the information domain.

<sup>134</sup> John Pike, "Operation Enduring Freedom - Philippines." Global Security.Org. <http://www.globalsecurity.org/military/ops/enduring-freedom-philippines.htm> (accessed November 6, 2008).

The publicly announced terms forbade active U.S. involvement in combat missions. Instead, U.S. personnel were to train the Philippine troops and leave after six months. The mission on Basilan was to conduct unconventional warfare operations in the Southern Philippines by, with, and through the AFP to help the Philippine government separate the population from and destroy terrorist organizations.<sup>135</sup> The desired end state was for the AFP to gain sufficient capability to locate and destroy the ASG, to recover hostages, and to enhance the legitimacy of the Philippine government. The intent was to provide all SF elements on Basilan with unifying guidance that would help synchronize counter-terrorist operations in the Southern Philippines with initial focus on Basilan.

Acting as observers/trainers, about 160 Special Forces troops deployed directly on the island of Basilan itself. Another 500 U.S. support soldiers were based in the city of Zamboanga and provided sophisticated surveillance information to the 4,000 Filipino troops hunting Abu Sayyaf guerrillas.<sup>136</sup> Major exercises have taken place during the deployment of U.S. forces to include Balikatan 02-1, a much larger Balikatan 02-2. These exercises along with Balance Piston 03-05 exercise were designed to enhance tactical and operational proficiency of the AFP. These exercises validated the training of the AFP and targeted terrorist groups operating in the Philippines. Through the assistance of the SOF advisers, it is estimated that the number of Abu Sayyaf Group members on Basilan Island has decreased to approximately 80 from a prior high of 700, due to the increased capability of the AFP.<sup>137</sup>

A secondary approach utilized the combined U.S. and AFP military force to attack the enemy's stronghold using a robust civil affairs program. This program undercut the terrorist's campaign as well as strengthened Philippine government

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<sup>135</sup> David S. Maxwell, "Operation Enduring Freedom-Philippines: what would Sun Tzu say?" *Military Review*. FindArticles.com. [http://findarticles.com/p/articles/mi\\_m0PBZ/is\\_2004\\_May-June/ai\\_n6123958](http://findarticles.com/p/articles/mi_m0PBZ/is_2004_May-June/ai_n6123958) (accessed November 6, 2008).

<sup>136</sup> David S. Maxwell, "Operation Enduring Freedom-Philippines: what would Sun Tzu say?" *Military Review*. FindArticles.com. [http://findarticles.com/p/articles/mi\\_m0PBZ/is\\_2004\\_May-June/ai\\_n6123958](http://findarticles.com/p/articles/mi_m0PBZ/is_2004_May-June/ai_n6123958) (accessed November 6, 2008).

<sup>137</sup> Christopher Parrinello, "Phase II the Philippines, Islamic insurgency, and Abu Sayyaf — Enduring Freedom." *Military Intelligence Professional Bulletin*. FindArticles.com. November 6, 2008. [http://findarticles.com/p/articles/mi\\_m0IBS/is\\_2\\_28/ai\\_84903380/pg\\_1?tag=artBody,col](http://findarticles.com/p/articles/mi_m0IBS/is_2_28/ai_84903380/pg_1?tag=artBody,col) (accessed November 6, 2008).

institutions and local security, which enabled Filipinos to go about their daily lives without the constant fear of terrorism. Dubbed Operation Smiles, this joint venture of U.S. and Philippine personnel provided medical attention, built essential services, and improved overall living conditions for the population. During the operation, 14 schools, 7 clinics, 3 hospitals, and 20 fresh water wells were constructed as well as providing medical, dental, and veterinary programs.<sup>138</sup> These synchronized efforts led to much of the OEF-Philippines success; the ASG was driven from Basilan and one U.S. hostage was recovered.

The operating environment of the Philippines was complex for a multitude of reasons. First, U.S. operations were limited primarily to Basilan and surrounding waters which allowed the JI, ASG, and MILF terrorist organizations to move with relative ease throughout three countries and hundreds of their territorial islands.<sup>139</sup> Second, a lack of understanding of Philippine laws contributed to U.S. political and military leaders' decisions to restrict the employment of SF advisers to a constrictive ROE and operating level. Third, ASG and Al Qaeda had well established connections due to Osama Bin-Laden's brother-in-law who provided leadership and funding. Fourth, the lack of understanding between the loose affiliation of the ASG and other terrorist organizations such as the Jemmah Islamiyah (JI) in Indonesia or the Moro Islamic Liberation Front (MILF) in the Philippines. Last, because the Philippine government was negotiating a peace agreement with the MILF, U.S. leaders prohibited SF units from assisting the AFP in MILF-controlled areas. Because the AFP wanted to work closely with the U.S. military, it shifted AFP troops from MILF-controlled areas so more AFP troops could benefit from U.S. advice and assistance elsewhere. This created de facto ASG sanctuaries.<sup>140</sup>

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<sup>138</sup> Maj. Mark E Alexander, "Operations Smiles; a Legacy of Operation." Asian Pacific Defense Forum. <http://131.84.1.218/piupdates/smiles.pdf> (accessed November 6, 2008).

<sup>139</sup> David S. Maxwell, "Operation Enduring Freedom-Philippines: what would Sun Tzu say?" Military Review. FindArticles.com. 06 Nov. 2008. [http://findarticles.com/p/articles/mi\\_m0PBZ/is\\_2004\\_May-June/ai\\_n6123958](http://findarticles.com/p/articles/mi_m0PBZ/is_2004_May-June/ai_n6123958) (accessed November 6, 2008).

<sup>140</sup> Ibid.

With the expansion of the Global War on Terror, the decision to deploy a Department of State funded mobile training team to provide the Philippine government with a national counterterrorist capability fit with the primary mission of the U.S. Special Forces. With the mission of advising the Armed Forces of the Philippines in combating terrorism, Joint Task Force 510 deployed to the Philippines.<sup>141</sup> The bulk of the 1,300-man force consisted of an air component in Mactan, Cebu, as well as staff and support personnel located at the JTF headquarters in Zamboanga. The tip of the U.S. spear consisted of 160 SF personnel with later augmentation of a 300 member Naval Construction Task Group (see Figure 5). All U.S. forces operated under restrictive rules of engagement.<sup>142</sup>

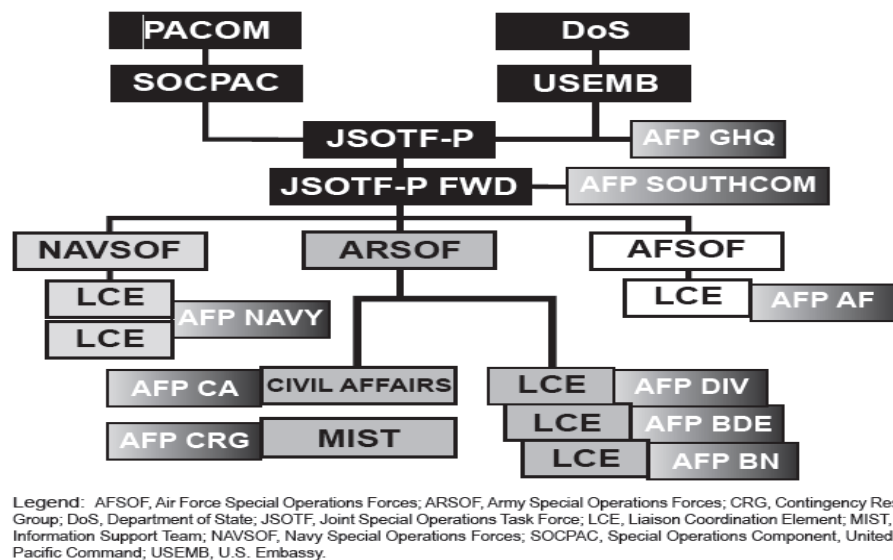


Figure 5. Joint Special Operations Task Force, Philippines Advisory Model

Given the severe restraints on the JTF 510 by ROE and the mission of training and advising, the commander of TF 510 sought to reduce the uncertainty and utilize non-

<sup>141</sup> “Operation Enduring Freedom – Philippines.” GlobalSecurity.org. (accessed November 6, 2008).

<sup>142</sup> Cherilyn A. Walley, “Impact of the Semi-permissive Environment on Force-protection in the Philippines Engagement.” *Special Warfare*, 2004, 1, <[www.findarticles.com/p/articles/mi\\_m0HZY/is\\_1\\_17/ai\\_n954388](http://www.findarticles.com/p/articles/mi_m0HZY/is_1_17/ai_n954388)>.accessed

kinetic/influential means from Gordon McCormick Diamond Model.<sup>143</sup> Applying the principles found in the Diamond Model within the political constraints of the Philippines led to the pursuit of three interconnected lines of operation: 1) *Building Philippine Armed Forces (AFP) capacity*. U.S. forces trained, advised, and helped Philippine security forces create a safe and secure environment. 2) *Focused civil-military operations*. Philippine-led humanitarian and civic-action projects demonstrated the government's concern for regional citizens and improved their quality of life. 3) *Information operations (IO)*.<sup>144</sup> With the goal of regional government, the IO campaign emphasized the success of the first two lines of operation.

In comparison to other conflicts, the overall size of the operation was small. With a force reaching a top end number of 1,200, military personnel were to act as advisers and logistical support, a mission ideally suited for the Special Forces. Using organic Philippine forces in the lead, SOF advisers and IO personnel (civil affairs, medical professionals, and PSYOP) pursued the lines of operations while working side by side with Philippine military doctors, nurses, local medical and dental college students, and the Philippine Department of Health in the complex environment. For additional support, a contingency force included elements of the 31st Marine Expeditionary Unit based in Okinawa, Japan, and the USS Essex Amphibious Ready Group. Both units were to provide support if required which would raise the number of personnel in the Philippines.

Within the information environment, the Philippines had a well-developed communications infrastructure with over 7 million of telephone lines, 41 million plus cell phones, 90 plus Internet service providers, multiple AM and FM radio stations, hundreds of television broadcast stations and a growing use of the Internet. From the human network system, Abu Sayyef had a distinct advantage over the AFP and U.S. teams. The combination of neglect and lack of military and government initiative created circumstances that allowed a growing presence of Abu Sayyef within the local population who became reliant on the insurgents for security. Second, the Philippines had a well-

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<sup>143</sup> The Diamond Model establishes a comprehensive framework for interactions between the host-nation government, the insurgents, the local populace, and international actors or sponsors.

<sup>144</sup> Joint Special Operations Task Force—Philippines (JSOTF-P) lines of operation were developed by the JSOTF-P and Special Operations Command, Pacific staff.

established government, which required military operations to play a supporting role to efforts managed by the U.S. State Department. This required synchronizing and deconflicting efforts with military planners, U.S. political personnel, and the Embassy country team members.

Military planners realized that the best way to confront a network was to create a counter-network, a non-hierarchical organization capable of responding quickly to actionable intelligence.<sup>145</sup> This required the SOF teams to build relationships with the AFP and the local population in an expedited manner, and was accomplished by focusing the AFP on common military tasks, and aggressive patrolling in local villages. To build the complete network, U.S. intelligence, surveillance and reconnaissance assets were integrated into plans and operations.

From the informational dimension, the local population was encouraged by the improving security situation. This allowed the HUMINT network to blossom, which in turn, allowed the AFP and U.S. forces the ability to communicate with the local population. This flow of information from the local population to the AFP and from the AFP to the U.S. advisers encouraged both vertical and horizontal intelligence sharing between U.S. and Philippine forces. This illustrated a weakness in the American philosophy of information age war and reflects an over-reliance on technological solutions at the expense of the human element, which must be the focus in a COIN fight.

SOF teams also promoted the AFP and Philippine government by putting the AFP in the lead in all manner of operations. AFP personnel and their U.S. advisors participated in many civic events such as school graduation ceremonies as well as village and provincial meetings. This reinforced the democratic process and provided the common message that the AFP and Philippine government cared about the population.

Perhaps the most influential dimension in OEF-P was the cognitive dimension. Utilizing the Military Information Support Team (MIST) in support of U.S. and

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<sup>145</sup> Colonel Gregory Wilson, "Anatomy of a Successful COIN Operation: OEF-Philippines and the Indirect Approach." U.S. Army. [http://www.army.mil/professionalwriting/volumes/volume5/january\\_2007/1\\_07\\_1.html](http://www.army.mil/professionalwriting/volumes/volume5/january_2007/1_07_1.html) (accessed November 6, 2008).

Philippine government information objectives had increased the population's level of awareness by using newspaper ads, handbills, posters, leaflets, radio broadcasts, and novelty items.<sup>146</sup> As Colonel Darwin Guerra, battalion commander of the 32d Infantry AFP, reported, "Once the people supported rebels and extremists because they felt neglected or oppressed by the government. The delivery of their basic needs like health and nutrition services, construction of infrastructure and impact projects, and strengthening security in the community that the Balikatan program brought [sic] changed their attitudes and loyalty. As residents began to experience better living conditions, they withdrew support from the militants."<sup>147</sup>

Attacking the enemy's strategy, the combined U.S. and AFP military force used a robust civil affairs program to undercut the terrorists. This strategy strengthened Philippine government institutions and local security to enable Filipinos to go about their daily lives without the constant fear of terrorism. Civic action projects contributed to this perception as water supply and distribution systems, mosques, schools, and medical services were rebuilt, restored, and reopened. These actions effectively persuaded the population in denying Abu Sayyaf its habitual sanctuary and curtailing the group's movement.<sup>148</sup> Because the AFP began to deter attacks and disrupted the terrorists' ability to operate in and around the cities, Philippine festivals were able to hold nighttime events for the first time.

## **1. Summary**

With the expansion of the Global War on Terror, the decision to deploy military training teams (JTF 510) to provide the Philippine government with a national counterterrorist capability faced a complexity that other theaters had not seen before as numerous factors increased the complexity of the operational environment. The first factor of working in a well established political and government system forced

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<sup>146</sup> Wilson, "Anatomy of a Successful COIN Operation."

<sup>147</sup> Ibid.

<sup>148</sup> C. H. Briscoe, "Reflections and Observations on ARSF [Army Special Forces] Operations during Balikatan 02-1." *Special Warfare*, 2004, 1, <[www.findarticles.com/p/articles/mi\\_m0HZY/is\\_1\\_17/ai\\_n9543891](http://www.findarticles.com/p/articles/mi_m0HZY/is_1_17/ai_n9543891)> (accessed October 5, 2008).



restrictions on the training teams. The second was the lack of understanding in a complex networked adversary, and its connections with other local and regional terrorist organizations. Last, the creation of de facto terrorist sanctuaries by redeploying government troops that would be trained by U.S. personnel.<sup>149</sup> Nonetheless, the high level of integration of IO into combat operations was not because of the complexity and instability but because the constrictive rules of engagement, command atmosphere, and command education which dictated the method of integrating IO into operations. The high level of IO asset integration is evident when looking at structure of the Special Forces task force (see Figure 5). The integration and use of elements of IO (PSYOP, CA, PAO, OPSEC) in planning operations, along with the commands stated goal to use principles of the McCormick Diamond Model produced the three interconnected lines of operation, of which two are squarely information operations.

JTF 510, facing the severe restrictions (adversity) placed upon it by the political structure, overcame these obstacles by utilizing not only historically IO associated elements (PSYOP, CA, PAO) but also utilized organic Special Forces soldiers when confronted with personnel limitations.<sup>150</sup> Special Forces soldiers, trained in Foreign Internal Defense (FID), brought the ability to employ IO which enabled the U.S. and AFP to focus on indigenous capacity-building efforts. The organizational structure, training, and education of the Special Forces soldiers and leaders indicate that the smaller elite units are organizationally better suited to integrate IO.

While the information environment was conducive to the availability of computers and networks, the ability to collaborate internally and externally relied on the human network rather than just the speed and efficiency of the computer network. The various networks of personnel (U.S. SOF, AFP, PSYOP, CA, and medical) working in concert and synchronized by the JTF headquarters allowed the combined force to present

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<sup>149</sup> David S. Maxwell, "Operation Enduring Freedom-Philippines: what would Sun Tzu say?" *Military Review*. FindArticles.com.. [http://findarticles.com/p/articles/mi\\_m0PBZ/is\\_2004\\_May-June/ai\\_n6123958](http://findarticles.com/p/articles/mi_m0PBZ/is_2004_May-June/ai_n6123958) (accessed November 6, 2008).

<sup>150</sup> A 'PACOM-imposed force cap' on Army SF personnel and heavy weapons in the exercise area of operations constrained the use of CA [civil affairs] teams. That compelled the commander of Forward Operating Base 11 to task SF detachments with the CA mission. C. H. Briscoe, 1.

the AFP as a viable, capable, and legitimate entity. An emphasized public awareness campaign brought by a synchronized information operations effort heightened the public awareness of the negative effects of terrorism and provided information on how to report terrorists, simultaneously showcasing the positive steps taken by the government and military to foster peace and development.

The combined U.S. and AFP military force effort to use civil affairs programs destabilized the terrorist strategy. The employment of U.S. and Philippine civil affairs assets strengthened the Philippine government position, while providing greatly needed essential service to the population. This approach of using civic action projects contributed to a change in perception about the government and its ability to care for the people. At the same time, these projects provided opportunities to tap into the “bamboo telegraph,” the indigenous information network.<sup>151</sup> This is reflected as villagers openly shared information on the local situation after they had become more comfortable with AFP and U.S. forces.

Overall, OEF-P provides a very prominent example of how to integrate information operations into combat operations. The collaborative effect of organizational and information theories have enabled the successful campaign of the combined U.S. and Philippine forces to see positive results over the seven-year venture.

## **E. OPERATION IRAQI FREEDOM (OIF)**

On March 19, 2003, President George W. Bush authorized an air strike on a small farm just outside Baghdad where the Iraqi leadership was supposed to be gathering. Once aircraft had departed Iraqi airspace, President Bush announced, “Coalition forces are in the early stages of military operations to disarm Iraq, to free its people and to defend the world from grave danger.”<sup>152</sup> This strike began Operation Iraqi Freedom, which was the first pre-emptive war of the Global War on Terror. The stated military

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<sup>151</sup> Colonel Gregory Wilson, “Anatomy of a Successful COIN Operation: OEF-Philippines and the Indirect Approach.” U.S. Army.  
[http://www.army.mil/professionalwriting/volumes/volume5/january\\_2007/1\\_07\\_1.html](http://www.army.mil/professionalwriting/volumes/volume5/january_2007/1_07_1.html) (accessed November 6, 2008).

<sup>152</sup> U.S. President George W. Bush, “Address to the Nation.” (March 2003),  
<http://www.whitehouse.gov/news/releases/2003/03/20030319-17.html>. (accessed November 2008).

objectives of the invasion were the removal of Sadaam Hussein from power; the elimination of weapons of mass destruction; to gather intelligence and the elimination of Islamic terrorists; to distribute humanitarian aid; to secure Iraq's oil infrastructure; and assist in creating a representative government as a model for other Middle East nations.

During the force buildup and the initial stages of the invasion, IO forces, as shown in Figure 6, concentrated on shaping the Iraqi theater of operations. Utilizing a combination of PYSOP, EW, Public Affairs, and Physical Destruction, the military focused on the capitulation of the military, defection of military leaders, and compliance of the population. Focusing on the Iraqi military, the original IO plan called for PSYOP leaflets to drop on units for several days encouraging the soldiers to capitulate. The most capable units of the Iraqi army never received these leaflets; coalition aircraft attacked these units without warning.

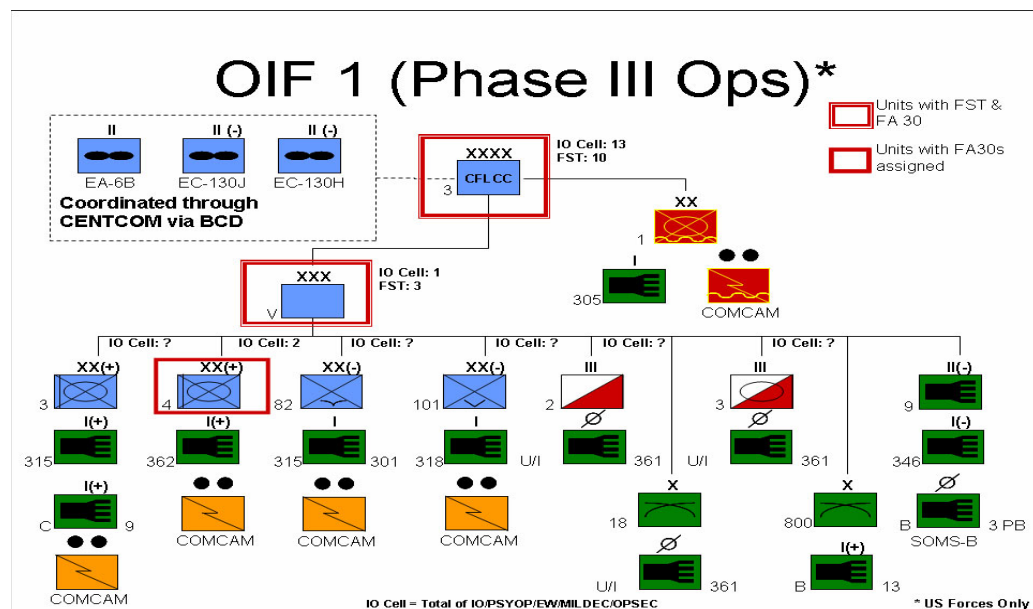


Figure 6. OIF-1 Major Combat Operations<sup>153</sup>

<sup>153</sup> Greg Fontenot, E.J. Degan, David Tohm, *On Point: The United States Army in Operation Iraqi Freedom* (Annapolis: Naval Press Institute, 2005), 441-495.

At the end of the “no attack grace period,” any unit that had not followed the instructions was attacked. This follow through of delivered messages had a large psychological impact on the remaining units. Utilizing airborne assets enabled the U.S. military to reach 90% of the military and population with themes and messages distributed through leaflets, radio, handbills, and television broadcasts. This resulted in many of the military units virtually throwing down their weapons and returning home instead of returning to their garrisons, as well as the eased the passage of U.S. forces through many southern Iraqi cities.

In addition to the PYSOP element, there were also different deception efforts during the advance to Baghdad. The first was to confuse Saddam about the axis of the primary attack. To accomplish this, Special Forces attacked and destroyed Iraqi surveillance posts on the Jordanian border in order to give the impression that the main attack would come from the Western Desert of Iraq. The second deception held out the possibility of attack from Turkey. USCENTCOM gave the impression that the 4<sup>th</sup> Infantry Division was to land in Turkey and attack through the northern portion of Iraq.<sup>154</sup> U.S. Central Commands’ intent was to keep the Nebuchadnezzar Republican Division in the north until it was too late to affect operations south of Baghdad. The last deception involved the Adnan Republican Guard Division and its outlook of where the V Corps’ attack would come from, preventing the relocation of the division in an attempt to defeat the coalitions attack.<sup>155</sup>

As coalition forces crossed into theater, they had access to several vital elements of IO. Attached to every division was a Tactical PSYOP Company (TPC), combat camera teams, and a mobile public affairs detachment (MPAD) capable of conducting offensive IO as units moved towards Baghdad. These assets, while attached to each division, presented command and control issues while trying to support their units. This was especially true for PSYOP and the ability to create products that better supported the division missions. Because the PSYOP product approval process required the Commander of USCENTCOM approval, newly created products were often overcome by

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<sup>154</sup> Tommy Franks, *American Soldier*. New York: Harper-Collins. 2004. 429, 435, and 500.

<sup>155</sup> *Ibid.*

events before PSYOP units could reach the local audience with pertinent information. More important was the inclusion of the U.S. and international media with ground forces during the invasion. The U.S. invasion of Iraq was the most widely and closely reported war in military history with 775 reporters and photographers traveling as “embedded journalists” with U.S. forces, with hundreds more taking their chances outside the Humvees.<sup>156</sup>

Coalition forces overthrew the regime of Saddam Hussein in just three weeks utilizing a force half the size of the Iraqi Army. On April 21, 2003, the coalition provisional authority (CPA) was established vesting itself with executive, legislative, and judicial authority over the Iraqi government. The transition from combat operations to a mission of defeating insurgent forces made up of former military officers, disgruntled former Baathist, Sunni Arabs, foreign fighters, and suspected Al Qaeda supporters increased the complexity as U.S. commanders failed to properly plan for phase 4 (stability) operations.

The information operations force structure working to defeat the insurgency faced an increasingly complex and hostile operational environment. Organizationally, U.S. forces faced internal and external challenges while trying to complete the complex task of defeating insurgents and supporting the CPA. Initially, coalition forces did a meager job of integrating IO with the CJTF-7 keeping the organic hierarchical staff structure, while commanders of the subordinate divisions utilized the Bosnian model to organize the staff, to synchronize IO, to reconstruct infrastructure, and to conduct combat operations. It was not until the arrival of the III Armored Corps staff in 2004 that the CJTF-7 (later MNFI) organized into IO working cells. While the organic structure of the coalition forces allocated IO cells at the JTF and CPA, only one division had a functional area 30 (information operations officer) assigned as the other divisions relied on the Fire Support Element (FSE) to coordinate and synchronize efforts. This often resulted in IO programs disconnected from other operations. Complicating matters further, leaders in CPA and

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<sup>156</sup> Bonnie A. Powell, “Reporters, Commentators Conduct an in-Depth Postmortem of Iraq War’s Media Coverage.” UC Berkley News. [http://www.berkeley.edu/news/media/releases/2004/03/15\\_mediatwar.shtml](http://www.berkeley.edu/news/media/releases/2004/03/15_mediatwar.shtml) (accessed November 10, 2008).

CJTF-7 had no understanding of the capabilities and limitations of the assets at its disposal. This led to inconsistent messages at the various levels of coalition forces and later the interim Iraqi government.

The external challenges consisted of facing an increasingly hostile information environment composed of the Arab street (rumor mill), devoted Iraqi media outlets, foreign satellite broadcasts like *Al Jazeera*, international media, and the increasing insurgency. The coalition's ability to reach the Iraqi populace became problematic due to USCENTCOM's decision to attack the radio and TV transmitters at onset of hostilities. This took away Sadaam's ability to communicate but the side effect of the attacks was the destruction of the nationwide radio and TV networks. Coalition forces would not feel the impact of this decision until they realized that coalition equipment was not capable of reaching the entire country, which meant that the CPA and later the Interim Iraqi government had no way to deliver messages to the country.

With the dissolution of the CPA and the Interim Iraqi Government (IIG) taking charge in 2004, the IO structure of coalition forces remained the same. The one exception was the 3<sup>rd</sup> Infantry Division which was in a partial modularized configuration. Although this division had an increased IO cell, the division struggled to keep pace with adversaries' information campaigns. To combat this shortage and lack of experience, the U.S. military sought to employ contractors to provide IO support to coalition forces in Iraq. The Lincoln Group was selected by the Department of Defense to lead the effort to publicize events in Iraq. The error in this selection was that, unlike the numerous public relations firms that existed, the Lincoln Group had zero experience in public relations. This inexperience led to a major problem when the group tried to generate stories (often false) written by the coalition and pass them off as Iraqi generated stories. This led to the loss of U.S. credibility and the belief that the coalition was trying to deceive the Iraqi population.

During this period, the practice of face-to-face engagements became a major element of the information operation arsenal. The military leaders coordinated effort of meeting with key leaders at every level of the Iraqi governorate allowed the passage of key talking points that covered recent, positive events. The information operations cells

coordinated whom and at what level local leadership would be engaged, as well as track information that was passed and received from these engagements. Although the talking points did not vary from week to week, they provided focus for subordinate units when meeting with local Iraqis.

The current government of Iraq took office on May 20, 2006, following approval by the members of the Iraqi National Assembly. This followed the general election in December 2005. With the return of sovereignty to the Iraqis, the coalition mission remained focused on defeating insurgents (later known as Anti-Iraqi forces) and building a national military and police force. During this period, the military fell under control of two command structures. The strategic level command was the Multi-National Force-Iraq, a command focused on strategic issues as well as coordination with the U.S. Embassy and New Iraqi government. The operational level command was the Multi-National Corps-Iraq (MNC-I) which focused on day to day fighting of the insurgency and reconstruction efforts. It was during this period (OIF 5 and later), that organic IO personnel arrived with the modular structured brigades and divisions. Armed with a public affairs officer, a psychological operations soldier, a computer network operations officer FA53, a civil affairs officer/soldier, and an information operations officer, these restructured units were capable of offensive and defensive operations in the information dimension. These organic personnel gave the units the capability of assessing, analyzing, and defending information attacks, as well as, conducting offensive attacks against the terrorist organizations and networks from the tactical to the strategic level. This improved the vertical and horizontal synchronization of messages as IO cells collaborated and synchronized efforts from the soldier on the ground to MNFI.

The increase in the automation infrastructure enabled the synchronization of personnel within the newly organized modular forces. Each unit now had an organic signal company with the Joint Network Node (JNN) system. The Joint Network Node is the central communications switching shelter that contains a Promina 400 to provide joint standard tactical entry point/Defense Information System Network connectivity (Non-secure Internet Protocol Router, Secret Internet Protocol Router, Defense Switched Network Defense Red Switch Network and Joint Worldwide Intelligence

Communications System) and uses an Ethernet backbone for internal/external connectivity.<sup>157</sup> This network allowed communications between the Brigade Main command post, Brigade Support Area command post, and Battalion command posts, which in turn fostered the sharing of information and a common operating picture.

To synchronize, to coordinate, and to deconflict the IO efforts, units began moving away from the Fire Support Element and the Effect Coordination Cell to the functional IOWG. The IOWG led by a trained IO professional at every major level of war (tactical to strategic), enabled a better understanding and employment of the elements of IO. The IOWG brought together all the core supporting and related activities of IO and synchronized efforts to support the overall actions of the unit in the operational environment. Information passed through the same basic channels as prior rotations in Iraq (PAO, PSYOP, U.S., and international media); the difference was the synchronization and harmonizing of themes, messages, and deeds of military units at the various levels. However, a major flaw was that commanders and IO practitioners alike used their own experience and bias to interpret the meaning of doctrine along with how IO should be integrated into combat operations. While some units achieved success, others saw minimal results because they just did not believe in IO or the personnel running the programs were inexperienced.<sup>158</sup> This struggle to integrate IO by commanders resulted in units developing their own methods for integrating IO. As Colonel Ralph Baker stated “I quickly discovered that IO was going to be one of the two most vital tools (along with human intelligence) I would need to be successful in a counterinsurgency (COIN) campaign.”<sup>159</sup> Most failures integrating IO were the result of the commander failing to visualize the complete operational environment and the IO

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<sup>157</sup> Jason Winterle, “Signal support in the new heavy/infantry brigade combat team.” Army Communicator. FindArticles.com. November 11, 2008.  
[http://findarticles.com/p/articles/mi\\_m0PAA/is\\_3\\_29/ai\\_n13821786](http://findarticles.com/p/articles/mi_m0PAA/is_3_29/ai_n13821786) (accessed October 2008)

<sup>158</sup> Center for Army Lessons Learned, Operation Iraqi Freedom (OIF) CAAT II Initial Impressions Report 04-13(Fort Leavenworth: May 2004), 1 - 27; Center for Army Lessons Learned, Information Operations CAAT Initial Impressions Report 05-03 (Fort Leavenworth: May 2005), iv, 1–2, 49–52; Center for Army Lessons Learned, Initial Impressions Report: Stability Operations–Support Operations Operation Iraqi Freedom (Fort Leavenworth: December 2003), 22; OEF/OIF CAAT Initial Impressions Report: Stability Operations – Support Operations (Fort Leavenworth: December 2003), 61.

<sup>159</sup> Ralph O. Baker, “The Decisive Weapon: A Brigade Combat Team Commander's Perspective on Information Operations.” Military Review, 86:13-32, May-June 2006, 19.



officer failing to assist the commander. As a result, IO was viewed in terms of good news (inform) rather than changing and shaping perceptions of the target audiences.

In 2007, the U.S. President proposed 21,500 more troops for Iraq and an increase in reconstruction proposals with \$1.2 billion for funding.<sup>160</sup> The troops, along with the new commander of MNF-I General David Petraeus, set forth a new strategy of opening a large number of smaller outposts, with troops living amongst the population. This dispersed approach along with the increased independent local, national, and international media coverage of our military operations proved critical to the success in the global information environment. Enemy activities were highlighted while coalition and Iraqi forces worked side-by-side, which reflected cohesion between the two forces.

“Surge” units now operated in the new modular brigade combat team configuration, which increased the integration of IO forces on the ground and the ability of units living in the smaller outpost to integrate IO into combat operations. Although the number and type of IO elements remained the same, the training of combat troops returning to Iraq was modified to include engagement and cultural training. This training allowed the soldier on the ground to conduct tactical IO. This force multiplier increased the reach of coalition and Iraqi themes and messages that resulted in a dramatic decrease in attacks and civilian deaths.

## **1. Summary**

When examining the conflict in Iraq, it is easy to see the important role that both organizational and informational theories have made on the ability of military units to integrate IO into overall combat operations and work within the greater construct of the operational environment. Both organizational and information theory would point to the same outcome of integration. The complex environment of combat and the need for the coalition to work with a multitude of partners would point to multiple liaisons and multiple coordination processes to ensure synchronization. The added physical network

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<sup>160</sup> “President’s Address to the Nation.” Office of the Press Secretary.  
<http://www.whitehouse.gov/news/releases/2007/01/20070110-7.html> (accessed November 12, 2008).

capability of the U.S. forces enabled the collaboration across the coalition as well as vertical and horizontal collaboration within U.S. forces.

The smaller, highly trained U.S. Special Forces were capable of conducting operations in support of IO as in the deception operations during the initial phases of the invasion. However, the mission changed to one of precision strikes and capture of high value targets. The spectrum of IO support focused on a very narrow dimension of psychological and physical rather than full spectrum IO. Planners at all levels had to account for the second and third order effects that a Special Forces mission would often involve in their area of operation once the SOF teams had departed.

Over the course of OIF, the evolution of IO has taken very positive steps towards the integration into operations. As Colonel Ralph Baker found, “I was somewhat surprised to find myself spending 70 percent of my time working and managing my intelligence and IO systems and a relatively small amount of my time directly involved with the traditional maneuver and fire support activities.”<sup>161</sup> This shift in command attitude ensured that IO received the attention and resources to accomplish required tasks. This sentiment was echoed by the III Corps commander in Iraq, Lieutenant General Thomas Metz, who declared a “broader and more aggressive, comprehensive, and holistic approach to IO – an approach that recognizes the challenges of the global information environment and seamlessly integrates the functions of traditional IO and PA – is required to succeed on the information – age battlefield.”<sup>162</sup> These positive changes also came in the form of the Army’s shift to the Modular Brigade Combat Teams’ structure.

The lessons learned over the past years of waging OIF are evident specifically in the IO arena. Not only has the number of trained IO personnel increased, but so has the organic structure within combat units. The military learned that using information in combat requires more than a small number of IO professionals at the strategic level (like the beginning of the war), rather it requires multiple professionals at all levels to synchronize the efforts of the command (like current force structure in Iraq). Every

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<sup>161</sup> Ralph O. Baker, “The Decisive Weapon: A Brigade Combat Team Commander's Perspective on Information Operations.” *Military Review*, 86:13-32, May-June 2006, 19.

<sup>162</sup> Thomas F. Metz, Lieutenant General, USA, “Massing Effects in the Information Domain,” *Military Review* (May – June 2006): 2-12.

rotation has brought forth new internal and external challenges and adversity as the U.S. military mindset and our adversary constantly adapt to the evolving informational and operational environment.

The next lesson focused internally, as the U.S. military experienced an increase in network capacity (both human and computer) which allowed a rapid transfer of information from the battlefield to commanders. Using this high volume of information, commanders began to use IO as a filter to determine appropriate responses and actions. As Lieutenant General Peter Chiarelli stated “The commander who prevails in the information war is almost certain to win the war itself.”<sup>163</sup> The increased speed and reliability of information that passed from the human network (physical) to the computer network and from the tactical to the strategic levels, allowed commanders and staffs alike to analyze the information and quickly generate a response either kinetic (raid, patrol show of force) or non-kinetic (press release, PSYOP product, Humanitarian Assistance).

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<sup>163</sup> Peter W. Chiarelli, Lieutenant General, USA, “Learning From Our Modern Wars: the Imperatives of Preparing for a Dangerous Future.” *Military Review* (September–October 2007). 2-15.

## V. FINDINGS AND CONCLUSION

### A. FINDINGS

The integration of IO into combat operations has made progress since Bosnia in the 1990's. However, U.S. leaders continue to wrestle with the understanding of what exactly IO is and how to employ the synchronized elements to utilize this combat multiplier. The new operational environment in which we now operate forces commanders to win kinetic operations and face non-kinetic dilemmas where tactical problems become strategic issues. The four case studies have supporting evidence for each of the frame of reference propositions outlined in chapter three.

While complexity will remain a part of warfare, the IO organization now brings information requirements that address how information environmental factors might affect kinetic operations. Due to the lethality of technologically advanced weapons systems, the risk to combatants and noncombatants will increase as the tendency of adversaries to operate among the population increases. The complex environment will require militaries to seek precise means to solve complex problems while reducing collateral damage to the population and infrastructure. The complexity is evident in each of the four case studies as the U.S. military sought to bring about a change in the level of peace and/or stability of a country during the conflict. However, the complexity did not force commanders to integrate IO into combat operations. For that reason, the lack of evidence has disproved organizational propositions number one.

The Special Forces motto, *de oppresso liber* (Latin: "to free from oppression") reflects the historical mission of guerrilla warfare against an occupying power. Special Forces have always sought to bring about change through direct or indirect action. Their eight stated missions; unconventional warfare, foreign internal defense, special reconnaissance, direct action, counter-terrorism, counter-proliferation, psychological operations, and information operations point to these highly trained units integrating IO. Over the course of the four case studies, evidence supports organizational proposition number two. For example, in OEF-P, JTF 510 shows a high level of integration. Facing

the severe restrictions placed upon it by the political structure, JTF 510 overcame these obstacles by using organic Special Forces soldiers to conduct IO when confronted with personnel limitations.<sup>164</sup> Special Forces soldiers trained in Foreign Internal Defense (FID) brought the ability to employ IO, which enabled the U.S. and AFP to focus on indigenous capacity-building efforts. A second supporting example comes from Bosnia when Special Forces JCO teams organized into functional areas to focus on specific warring factions and critical areas within the community. Working in functional teams allowed the JCO to accurately read the sentiment of the population and notify their higher headquarters of impending problems or unrest before they occurred. The organizational structure as well as training and education of the Special Forces soldiers and leaders indicates that the smaller elite units are organizationally better suited to integrate IO confirming organizational proposition number two.

The U.S. Army's new FM 3-0 states, "Commanders devise and execute plans that complement the actions of the other instruments of national power in a focused, unified effort. To this end, operational commanders draw on experience, knowledge, education, intellect, intuition, and creativity."<sup>165</sup> Organizational proposition number three focuses on the commanders' ability to use operational art to integrate IO into combat operations. Field commanders who chose to integrate IO are evident in each of the four case studies selected for this thesis. There is also evidence that other factors drove commanders to integrate IO rather than integrating from the start of the operation. In Bosnia and OEF-P, constrictive rules of engagement and command atmosphere dictated the need to integrate IO into combat operations. Regardless of how they arrived at the need for integration, commands in each of the studies did integrate IO based on commanders' positive guidance and belief in the need for IO. In OEF-A and OIF, the integration of IO did occur but not in a synchronized manner until later rotations (2006 to present). Instead, the IO campaign lacked unity of effort with the kinetic operations that dominate the

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<sup>164</sup> "A 'PACOM-imposed force cap' on Army SF personnel and heavy weapons in the exercise area of operations constrained the use of CA [Civil Affairs] teams. That compelled the commander of Forward Operating Base 11 to task SF detachments with the CA mission." C. H. Briscoe, 1.

<sup>165</sup> Department of the Army. Field Manual 3-0, Operations. February 27, 2008. Washington, D.C. Headquarters, Department of the Army, 2008, [https://akocomm.us.army.mil/usapa/doctrine/DR\\_pubs/dr\\_aa/pdf/fm3\\_0.pdf](https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm3_0.pdf) (accessed February 27, 2008).

Afghan theater of operation. The command atmosphere has a major impact on the integration of IO but often due to necessity and other factors rather than this independent proposition.

Many historical references support how defeat or adversity has spurred change within the military in some manner. The U.S. military is a good example when it changed between World War I and World War II and again after Vietnam. Looking at the four case studies, change did occur as in other conflicts based on adversity rather than on defeat. The first example of change due to adversity comes from Bosnia, where U.S. forces constrained by rules of engagement and the enforcement of the Dayton Peace Accords were forced from historically lethal tasks of finding, fixing, and eliminating the enemy. Instead, U.S. forces were required to conduct non-traditional tasks that informed, deceived, exploited, and influenced the former warring factions and the civilian population. This led to groundbreaking development of tactics techniques and procedures still used today.

The next example comes from the overall GWOT (OEF-A/P, OIF) where Al Qaeda has been very effective in its use of information warfare against the U.S. and coalition partners. Using disinformation and propaganda, Al Qaeda has been virtually unchecked in furthering their information objectives. The terrorists are resourceful, innovative, and diverse when it comes to the use of information operations at the strategic level. This allows them to expand and maintain ideological support while influencing key personnel and general population. News outlets such as CNN, FOXNEWS, BBC, and Al Jazeera have been unwitting (or sometimes willing) accomplices in delivering the terrorist message to both the Arab and world audiences. The terrorist use of this type of medium has been very effective in a counter will campaign on the key leaders of the United States and other countries.<sup>166</sup>

To combat Al Qaeda's use of information warfare, the U.S. has adopted a similar mentality on the use of information. Integrating information operations has allowed

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<sup>166</sup> Martin C Libicki and National Defense University. Institute for National Strategic Studies. "What is Information Warfare?" Strategic Forum. Vol. 28. Washington, D.C.: National Defense University, Institute for National Strategic Studies, 1995.

military forces to capture the perception of target audiences, profit from truthful information, and take full advantage of enemies' misrepresentation of events which has tipped the scales in favor of the U.S. forces in the varying theaters of operation. The main factor of this change is the handling of information from the tactical (on the ground) level to the combatant commander at the strategic level. Synchronizing and nesting information campaigns with higher-level goals and objectives provide unity of effort while organizationally providing organic personnel at lower levels of warfare. These examples show how the adversity faced in the case studies verifies organizational proposition number four.

The advancement of military technology and the technology revolution seen throughout the world undoubtedly has made an impact on the ability of the U.S. military to conduct operations around the globe. This impact is seen in the volumes of information passed over the clusters of networks that connected NATO headquarters with the Implementation Force (IFOR) in Bosnia, to the vast patchwork-operating environment within the tactical units, to the functional information chain linking public information officers together. It is clear that the speed and efficiency of information allowed U.S. forces to integrate IO into its operation in Bosnia with a near-real-time situational awareness that allowed the staff elements to quickly analyze and take appropriate action. In OEF-A and OIF, the use of the technology has allowed information to pass from tactical units on the ground to headquarters located thousands of miles away. The clarity of the situation on the ground through live video feeds, instantaneous updates, and a common operating picture have created the opportunity for U.S. leaders to become proactive instead of reactive to adversary kinetic and non-kinetic attacks. However, as seen in OEF-A and OIF, the increase in information does not necessarily mean that commanders will integrate IO thus disproving informational proposition number one.

The longer a conflict, the more likely militaries learn to adapt to the changing adversary. The U.S., operating in World War II and Korea, saw the adjustment of tactics, techniques, and equipment, which in turn, gave them a decisive edge over adversaries. In the four case studies, U.S. forces have highlighted the ability to follow suit by developing

new TTP's for the integration of IO into combat operations. In Bosnia, the personnel who worked to integrate IO pioneered the ability to synchronize the staff at the various levels of war. This was accomplished first by gaining the confidence of the commander, then by developing a working group to ensure everyone understood what was required, and followed by the establishment of the IO working group that is in use to this day. In OEF-A, Special Forces soldiers utilizing the tactical network posted suspected targeting information to a tactical webpage which resulted in the destruction of Taliban and Al Qaeda forces in an efficient manner. This soon became the norm when conventional forces arrived and the collaboration of information occurred between kinetic and non-kinetic information reached tactical and operational headquarters.

Perhaps the best example of the military learning curve is provided by OIF. The kinetic focused actions of the invading forces quickly defeated the Iraqi Army and deposed the Saddam regime. The failure to integrate IO and plan for the collapse of the government resulted in looting, violence, and chaos immediately following the military victory. Over the course of the conflict, the steady integration of IO at the various levels of warfare and the shift from the kinetic to non-kinetic focused operations has resulted in an established democratic Iraqi government, a dramatically improved security situation, and an improved quality of life for the Iraqi citizens. Informational proposition number two is viably supported throughout the case studies.

Examining information proposition number three, it is important to understand how networks are viewed in this specific instance. For the purposes of this study, networks are both technological and social. From the technological standpoint, many of the points made with information proposition number one are valid with this proposition. The ability of military units to interconnect and share information in an expedited manner enables commanders and staffs to quickly analyze and respond depending on the situation. Today's technology provides higher echelon commands to develop the operational and strategic response while the tactical fight is ongoing.

From the social network aspect, there is both an internal and external view required. Internally, the vertical and horizontal synchronization of the IO elements allowed the reallocation of assets to meet shortfalls, unify effort, and prevent IO



fratricide. A primary example of the internal human network is the Special Forces teams who were located and collaborated with anti-Taliban militias during the offensive on Mazari Sharif. Team members talked via radio to synchronize efforts, while at the same time, they called in air strikes against Taliban positions. Externally, the network encompassed ally collaboration, the human intelligence, and population engagement. This key network determined sentiment of the population, potential targets, and communication exchange with the various outside sources. Two primary examples of the external network were the JCO teams that operated in Bosnia and the civil affairs teams operating in the Philippines.

The most important aspect of the network is the ability take the data, filter it into usable information, and present it in a manner allowing the commander to make an informed decision. Ultimately, it is greater networking that will foster integration if the information is presented in a manner that commanders and staffs find useful.

The netcentric warfare approach suggests that modern military environments are far too complex to be understood by any one individual, organization, or even military service. The rapid and effective sharing of information enabled by today's information technology permits the U.S. military the ability to "pull" information from ubiquitous repositories (i.e., tactical units), rather than having centralized agencies (strategic headquarters) attempt to anticipate their information needs and "push" it to them. All four cases have examples of this approach embedded in them. In Bosnia two examples stand out, first was a practice known as "skip-echeloning" where Washington-based commands and IFOR headquarters elements occasionally used networks to bypass intervening organizations in order to exchange information requirements firsthand with tactical units. This ability while beneficial to the higher headquarters sometimes left the broader community in the dark. The second is the collaboration of the public information officers who faced the reality of falling behind in the information war. With the area of operation saturated with media, the PIOs created an adhoc network to share information which enabled them to release quality, firsthand information to the media thus enabling the coalition side of the story to come out first.

In OEF-A, the rapid building and expansion of the tactical network enabled first the Special Forces soldiers operating with the Northern Alliance and later the conventional forces operating in country the ability to share information quickly both vertically and horizontally. This collaboration resulted in the quick collapse of the Taliban and in recent rotations, the ability to counter misrepresented press releases and propaganda. Using three networks (SOF, U.S. conventional, and NATO) to attack the Taliban has enabled the sluggish Afghan government the ability to survive.

In OEF-P, military planners realized that the best way to confront a network was to create a counter-network, a non-hierarchical organization capable of responding quickly to actionable intelligence.<sup>167</sup> This counter network coupled with a multipronged approach of embedded advisors with AFP and a robust civil affairs program undercut the terrorists support base. Combining U.S. and Philippine efforts strengthened Philippine government institutions and local security as SOF teams promoted the AFP and Philippine government by putting them in all manner of operations. This behind the scenes approach was very effective as the multiple uses of networks won the support of the population.

In OIF, the invasion serves as a good example of synchronizing the various network activities to accomplish a military task. The U.S. advanced on Baghdad using two axis of advance and multiple SOF attacks to disrupt the Iraqi decision cycle. The internally and externally network connected forces communicated progress and impediments to higher headquarters (internal), while daily press briefings and the embedded reporters provided live feeds to world audience about the invasion (external). This rapid flow information confused Iraqi decision makers and resulted in the collapse of the Iraqi Army and the subsequent fall of the Saddam Hussein Regime. During the “Surge” operations in 2007, the new strategy of opening a large number of smaller outposts with troops living amongst the population facilitated the smaller networks (tactical units often company sized) to provide larger input and output of information.

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<sup>167</sup> Colonel Gregory Wilson, “Anatomy of a Successful COIN Operation: OEF-Philippines and the Indirect Approach.” U.S. Army. [http://www.army.mil/professionalwriting/volumes/volume5/january\\_2007/1\\_07\\_1.html](http://www.army.mil/professionalwriting/volumes/volume5/january_2007/1_07_1.html) (accessed November 6, 2008).

The example from OIF along with the examples from Bosnia, OEF-A, and OEF-P confirm that using a netcentric approach to warfare does allow easier integration for units.

## **B. CONCLUSION**

The integration of IO into combat operations has made progress since operations in Bosnia. However, U.S. leaders continue to wrestle with the understanding of what exactly IO is and how to employ the synchronized elements to utilize this combat multiplier. The new operational environment in which the U.S. military now operates forces commanders to win kinetic operations and face non-kinetic dilemmas where tactical problems become strategic issues. The four case studies have supporting evidence for each of the frame of reference proposition outlined in chapter three. While each of the frames of reference has support as having more explanatory impact on the integration of IO, the two frames of reference used in combination appears to have the best overall results when integrating IO into combat operations.

Two propositions have the greatest impact on the integration of IO in this thesis. First, the attitude of command (positive and negative) will determine whether integration of IO occurs (OFR#3). Without the proper command atmosphere, the integration of information operations will simply not occur. Commanders who do not believe in the usefulness of IO will focus on kinetic operations instead of a full spectrum view using all the elements of combat power. This is evident in the early stage of OIF and OEF-A, where commanders were kinetically focused and IO efforts were only an afterthought. Second, the greater availability of information technology fosters the integration of IO (IFR #1). The increased availability of technology enables military units to share information both vertically and horizontally which allows greater situational awareness. These technological networks provide a common operating picture for higher echelon commands, which allows operational and strategic planners the ability to respond while the tactical fight is ongoing. This has resulted in the death of key insurgent leaders in Afghanistan as well as the countering of propaganda and exploitation of military success in all four theaters.

The U.S. military has usually made advancements in times of adversity. These transformations have brought about some of the greatest innovations in organization, as well as tactics allowing the U.S. to achieve some of the greatest military victories in history. The current conflicts and the military facing those conflicts is no different from any of our historic predecessors who transformed their militaries during and after epic struggles. The Global War on Terror has shown that the military must learn to adapt quickly to overcome a flexible enemy who does not follow a set of guidelines to wage war.<sup>168</sup> The battle hardened professional soldiers must continue to spearhead the call for change and push this generation into the same type of “renaissance” that occurred in the 1860s and again in the 1920s and 1940s.<sup>169</sup> It is the author’s belief that the integration of information operations is paramount to the future of the military force and that without a change in military mindset, we will be caught short like the attack on September 11, 2001, and the information campaign conducted by Al Qaeda.

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<sup>168</sup> Steven Metz, “Learning from Iraq: Counterinsurgency in American strategy.” Carlisle, PA: Strategic Studies Institute of the U.S. Army War College, 2008.

<sup>169</sup> James M. McCaffrey, “The Army in Transformation.” 1790-1860. The Greenwood Press “Daily Life through History” Series. Westport, Conn.: Greenwood Press, 2006.

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